



## SEQUENCE LISTING

<110> Agarwal, Pankaj  
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White, John R.

<120> NOVEL COMPOUNDS

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<141> 2003-10-15

<150> 60/213,161  
<151> 2000-06-22

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<211> 699  
<212> DNA  
<213> Homo sapiens

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tctcttgatg acatttacat gatcgagta agtcttaggag cccacatatc tgggtttgtt 360  
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gactctatgg acttaagttc accgaaggaa gtggatga 699

<210> 15  
<211> 1359  
<212> DNA  
<213> Homo sapiens

<400> 15  
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<210> 16  
<211> 1353  
<212> DNA  
<213> Homo sapiens

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gcccgtgcgtt gggacgcgc ggcacatcagc cgcagctgtt gccgcgtggc tggcagcc 480  
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<210> 17  
<211> 768

<212> DNA  
<213> Homo sapiens

<400> 17

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accttccca	agtgtattct	gcgccttagt	gacatggacg	agctggacct	tagccgaaat	180
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<210> 18  
<211> 645  
<212> DNA  
<213> Homo sapiens

<400> 18

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gctctaacac	cacactccag	ctactgtgta	gtggctgaa	tatatcagcc	catgttagac	600
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<210> 19  
<211> 696  
<212> DNA  
<213> Homo sapiens

<400> 19

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<210> 20  
<211> 792

<212> DNA  
<213> Homo sapiens

<400> 20

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<210> 21  
<211> 780  
<212> DNA  
<213> Homo sapiens

<400> 21

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<210> 22  
<211> 1251  
<212> DNA  
<213> Homo sapiens

<400> 22

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<210> 23

<211> 461

<212> PRT

<213> Homo sapiens

<400> 23

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Pro	Trp	Thr	Arg	Thr	Phe	Ser	Thr	Glu	Leu	Val	Gly	Leu	Pro	Trp	Ser
								35		40			45		
Pro	Glu	Lys	Ile	Asn	Thr	Arg	Phe	Leu	Leu	Tyr	Thr	Ile	His	Asn	Pro
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Asn	Ala	Tyr	Gln	Glu	Ile	Ser	Ala	Val	Asn	Ser	Ser	Thr	Ile	Gln	Ala
								65		70			75		80
Ser	Tyr	Phe	Gly	Thr	Asp	Lys	Ile	Thr	Arg	Ile	Asn	Ile	Ala	Gly	Trp
								85		90			95		
Lys	Thr	Asp	Gly	Lys	Trp	Gln	Arg	Asp	Met	Cys	Asn	Val	Leu	Leu	Gln
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Leu	Glu	Asp	Ile	Asn	Cys	Ile	Asn	Leu	Asp	Trp	Ile	Asn	Gly	Ser	Arg
								115		120			125		
Glu	Tyr	Ile	His	Ala	Val	Asn	Asn	Leu	Arg	Val	Val	Gly	Ala	Glu	Val
								130		135			140		
Ala	Tyr	Phe	Ile	Asp	Val	Leu	Met	Lys	Lys	Phe	Glu	Tyr	Ser	Pro	Ser
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Lys	Val	His	Leu	Ile	Gly	His	Ser	Leu	Gly	Ala	His	Leu	Ala	Gly	Glu
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Ala	Gly	Ser	Arg	Ile	Pro	Gly	Leu	Gly	Arg	Ile	Thr	Gly	Leu	Asp	Pro
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Ala	Gly	Pro	Phe	Phe	His	Asn	Thr	Pro	Lys	Glu	Val	Arg	Leu	Asp	Pro
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Ser	Asp	Ala	Asn	Phe	Val	Asp	Val	Ile	His	Thr	Asn	Ala	Ala	Arg	Ile
								210		215			220		
Leu	Phe	Glu	Leu	Gly	Val	Gly	Thr	Ile	Asp	Ala	Cys	Gly	His	Leu	Asp
								225		230			235		240
Phe	Tyr	Pro	Asn	Gly	Gly	Lys	His	Met	Pro	Gly	Cys	Glu	Asp	Leu	Ile
								245		250			255		
Thr	Pro	Leu	Leu	Lys	Phe	Asn	Ala	Tyr	Lys	Lys	Glu	Met	Ala		
								260		265			270		
Ser	Phe	Phe	Asp	Cys	Asn	His	Ala	Arg	Ser	Tyr	Gln	Phe	Tyr	Ala	Glu
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Ser	Ile	Leu	Asn	Pro	Asp	Ala	Phe	Ile	Ala	Tyr	Pro	Cys	Arg	Ser	Tyr
								290		295			300		
Thr	Ser	Phe	Lys	Ala	Gly	Thr	Cys	Val	Gly	Cys	Ala	Asp	Leu	Leu	His
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Arg Ile Asp Lys Ile Gly Ser His Thr Ser His Val Phe Leu Thr Leu  
 325 330 335  
 Ser Leu Pro Phe Leu Leu Val Ser Leu Tyr Leu Gly Trp Arg His Lys  
 340 345 350  
 Leu Ser Val Lys Leu Ser Gly Ser Glu Val Thr Gln Gly Thr Val Phe  
 355 360 365  
 Leu Arg Val Gly Gly Ala Val Arg Lys Thr Gly Glu Phe Ala Ile Val  
 370 375 380  
 Ser Gly Lys Leu Glu Pro Gly Met Thr Tyr Thr Lys Leu Ile Asp Ala  
 385 390 395 400  
 Asp Val Asn Val Gly Asn Ile Thr Ser Val Gln Phe Ile Trp Lys Lys  
 405 410 415  
 His Leu Phe Glu Asp Ser Gln Asn Lys Leu Gly Ala Glu Met Val Ile  
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<210> 24  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<400> 24  
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 Trp Asp Thr Thr Gly Tyr Ala Leu Gly Ser Arg Glu Ser Leu Asn Pro  
 35 40 45  
 Asp Met Gly Ile Gly Asp Pro His Gly His Ser Thr Val His Thr Arg  
 50 55 60  
 Glu Ala Gly Thr Ala Cys Pro Leu Gln Leu Leu Gly Ala Arg Glu Ala  
 65 70 75 80  
 Ser Leu Leu Ala Cys Gly Ile Cys Gln Ala Ser Gly Gln Ile Phe Ile  
 85 90 95  
 Thr Gln Thr Leu Gly Ile Lys Gly Tyr Arg Thr Val Val Ala Leu Asp  
 100 105 110  
 Lys Val Pro Glu Asp Val Gln Glu Tyr Ser Trp Tyr Trp Gly Ala Asn  
 115 120 125  
 Asp Ser Ala Gly Asn Met Ile Ile Ser His Lys Pro Pro Ser Ala Gln  
 130 135 140  
 Gln Pro Gly Pro Met Tyr Thr Gly Arg Glu Arg Val Asn Arg Glu Gly  
 145 150 155 160  
 Ser Leu Leu Ile Arg Pro Thr Ala Leu Asn Asp Thr Gly Asn Tyr Thr  
 165 170 175  
 Val Arg Val Val Ala Gly Asn Glu Thr Gln Arg Ala Thr Gly Trp Leu  
 180 185 190  
 Glu Val Leu Asp Gly Pro Asp Tyr Val Leu Leu Arg Ser Asn Pro Asp  
 195 200 205  
 Asp Phe Asn Gly Ile Val Thr Ala Glu Ile Gly Ser Gln Val Glu Met  
 210 215 220  
 Glu Cys Ile Cys Tyr Ser Phe Leu Asp Leu Lys Tyr His Trp Ile His  
 225 230 235 240

Asn	Gly	Ser	Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser
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Leu	Ala	Trp	Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro
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Val	Thr	Gln	Leu	Ile	Met	Tyr	Met	Asp	Val	Arg	Ile	Gln	Ala	Pro	His
					275			280				285			
Glu	Cys	Ser	Ser	Ser	Pro	Pro	Gly	Ser	Cys	Phe	Ala	His	Leu	Pro	Ala
					290			295				300			
Ser	Met	Pro	Cys												
					305										

<210> 25  
<211> 457  
<212> PRT  
<213> Homo sapiens

<400>	25														
Met	Asp	Leu	Ser	Arg	Pro	Arg	Trp	Ser	Leu	Trp	Arg	Arg	Val	Phe	Leu
					1		5		10				15		
Met	Ala	Ser	Leu	Leu	Ala	Cys	Gly	Ile	Cys	Gln	Ala	Ser	Gly	Gln	Ile
					20			25					30		
Phe	Ile	Thr	Gln	Thr	Leu	Gly	Ile	Lys	Gly	Tyr	Arg	Thr	Val	Val	Ala
					35			40				45			
Leu	Asp	Lys	Val	Pro	Glu	Asp	Val	Gln	Glu	Tyr	Ser	Trp	Tyr	Trp	Gly
					50			55				60			
Ala	Asn	Asp	Ser	Ala	Gly	Asn	Met	Ile	Ile	Ser	His	Lys	Pro	Pro	Ser
					65			70			75		80		
Ala	Gln	Gln	Pro	Gly	Pro	Met	Tyr	Thr	Gly	Arg	Glu	Arg	Val	Asn	Arg
					85			90			95				
Glu	Gly	Ser	Leu	Leu	Ile	Arg	Pro	Thr	Ala	Leu	Asn	Asp	Thr	Gly	Asn
					100			105			110				
Tyr	Thr	Val	Arg	Val	Val	Ala	Gly	Asn	Glu	Thr	Gln	Arg	Ala	Thr	Gly
					115			120			125				
Trp	Leu	Glu	Val	Leu	Glu	Leu	Gly	Ser	Asn	Leu	Gly	Ile	Ser	Val	Asn
					130			135			140				
Ala	Ser	Ser	Leu	Val	Glu	Asn	Met	Asp	Ser	Val	Ala	Ala	Asp	Cys	Leu
					145			150			155		160		
Thr	Asn	Val	Thr	Asn	Ile	Thr	Trp	Tyr	Val	Asn	Asp	Val	Pro	Thr	Ser
					165			170			175				
Ser	Ser	Asp	Arg	Met	Thr	Ile	Ser	Pro	Asp	Gly	Lys	Thr	Leu	Val	Ile
					180			185			190				
Leu	Arg	Val	Ser	Arg	Tyr	Asp	Arg	Thr	Ile	Gln	Cys	Met	Ile	Glu	Ser
					195			200			205				
Phe	Pro	Glu	Ile	Phe	Gln	Arg	Ser	Glu	Arg	Ile	Ser	Leu	Thr	Val	Ala
					210			215			220				
Tyr	Gly	Pro	Asp	Tyr	Val	Leu	Leu	Arg	Ser	Asn	Pro	Asp	Asp	Phe	Asn
					225			230			235		240		
Gly	Ile	Val	Thr	Ala	Glu	Ile	Gly	Ser	Gln	Val	Glu	Met	Glu	Cys	Ile
					245			250			255				
Cys	Tyr	Ser	Phe	Leu	Asp	Leu	Lys	Tyr	His	Trp	Ile	His	Asn	Gly	Ser
					260			265			270				
Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser	Leu	Ala	Trp
					275			280			285				
Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro	Val	Thr	Gln
					290			295			300				

Leu Ile Met Tyr Met Asp Val Arg Ile Gln Ala Pro His Glu Cys Pro  
 305                   310                   315                   320  
 Leu Pro Ser Gly Ile Leu Pro Val Val His Arg Asp Phe Ser Ile Ser  
 325                   330                   335  
 Gly Ser Met Val Met Phe Leu Ile Met Leu Thr Val Leu Gly Gly Val  
 340                   345                   350  
 Tyr Ile Cys Gly Val Leu Ile His Ala Leu Ile Asn His Tyr Ser Ile  
 355                   360                   365  
 Arg Cys Pro His Cys Ser Gly Thr Arg Val Gly Cys Trp Leu Gly Ala  
 370                   375                   380  
 Gly Thr Gln Glu Pro Ala Leu Pro Pro Glu Gly Lys Gln Ser Gln Lys  
 385                   390                   395                   400  
 Gly Arg Asp Lys Pro Gly Thr Arg Leu Ser Gly Ile Ile Trp Gly Arg  
 405                   410                   415  
 Gln Ile Ser Pro Gln Asp Leu Lys Leu Met Gly Ala Arg Glu Gly Leu  
 420                   425                   430  
 Glu Ser Ala Met Val Leu Asn Ser Cys Gly Val Ser Ser Ser Asn Phe  
 435                   440                   445  
 Pro Ser Leu Cys Val Tyr Lys Gly Tyr  
 450                   455

<210> 26  
 <211> 704  
 <212> PRT  
 <213> Homo sapiens

<400> 26  
 Met Leu His Asp Gly Leu Thr Ala Pro Asp Gly Cys Gly Ile Tyr Ser  
 1                   5                   10                   15  
 Leu Thr Gly Arg Glu Val Leu Thr Pro Phe Pro Gly Leu Gly Thr Ala  
 20                   25                   30  
 Ala Ala Pro Ala Gln Gly Gly Ala His Leu Lys Gln Cys Asp Leu Leu  
 35                   40                   45  
 Lys Leu Ser Arg Arg Gln Lys Gln Leu Cys Arg Arg Glu Pro Gly Leu  
 50                   55                   60  
 Ala Glu Thr Leu Arg Asp Ala Ala His Leu Gly Leu Leu Glu Cys Gln  
 65                   70                   75                   80  
 Phe Gln Phe Arg His Glu Arg Trp Asn Cys Ser Leu Glu Gly Arg Met  
 85                   90                   95  
 Gly Leu Leu Lys Arg Gly Phe Lys Glu Thr Ala Phe Leu Tyr Ala Val  
 100                  105                  110  
 Ser Ser Ala Ala Leu Thr His Thr Leu Ala Arg Ala Cys Ser Ala Gly  
 115                  120                  125  
 Arg Met Glu Arg Cys Thr Cys Asp Asp Ser Pro Gly Leu Glu Ser Arg  
 130                  135                  140  
 Gln Ala Trp Gln Trp Gly Val Cys Gly Asp Asn Leu Lys Tyr Ser Thr  
 145                  150                  155                  160  
 Lys Phe Leu Ser Asn Phe Leu Gly Ser Lys Arg Gly Asn Lys Asp Leu  
 165                  170                  175  
 Arg Ala Arg Ala Asp Ala His Asn Thr His Val Gly Ile Lys Ala Val  
 180                  185                  190  
 Lys Ser Gly Leu Arg Thr Thr Cys Lys Cys His Gly Val Ser Gly Ser  
 195                  200                  205  
 Cys Ala Val Arg Thr Cys Trp Lys Gln Leu Ser Pro Phe Arg Glu Thr  
 210                  215                  220

Gly Gln Val Leu Lys Leu Arg Tyr Asp Ser Ala Val Lys Val Ser Ser  
225 230 235 240  
Ala Thr Asn Glu Ala Leu Gly Arg Leu Glu Leu Trp Ala Pro Ala Arg  
245 250 255  
Gln Gly Ser Leu Thr Lys Gly Leu Ala Pro Arg Ser Gly Asp Leu Val  
260 265 270  
Tyr Met Glu Asp Ser Pro Ser Phe Cys Arg Pro Ser Lys Tyr Ser Pro  
275 280 285  
Gly Thr Ala Gly Arg Val Cys Ser Arg Glu Ala Ser Cys Ser Ser Leu  
290 295 300  
Cys Cys Gly Arg Gly Tyr Asp Thr Gln Ser Arg Leu Val Ala Phe Ser  
305 310 315 320  
Cys His Cys Gln Val Gln Trp Cys Cys Tyr Val Glu Cys Gln Gln Cys  
325 330 335  
Val Gln Glu Glu Leu Val Tyr Thr Cys Lys His Ala Met Gly Pro Val  
340 345 350  
Gly Phe Pro Arg Gln Cys Gln Gly Ala Phe Phe Glu Ser Ser Pro Gly  
355 360 365  
Gln Thr Arg Ala Arg Leu Thr Gly Arg Glu Val Leu Thr Pro Phe Pro  
370 375 380  
Gly Leu Gly Thr Ala Ala Ala Pro Ala Gln Gly Gly Ala His Leu Lys  
385 390 395 400  
Gln Cys Asp Leu Leu Lys Leu Ser Arg Arg Gln Lys Gln Leu Cys Arg  
405 410 415  
Arg Glu Pro Gly Leu Ala Glu Thr Leu Arg Asp Ala Ala His Leu Gly  
420 425 430  
Leu Leu Glu Cys Gln Phe Gln Phe Arg His Glu Arg Trp Asn Cys Ser  
435 440 445  
Leu Glu Gly Arg Met Gly Leu Leu Lys Arg Gly Phe Lys Glu Thr Ala  
450 455 460  
Phe Leu Tyr Ala Val Ser Ser Ala Ala Leu Thr His Thr Leu Ala Arg  
465 470 475 480  
Ala Cys Ser Ala Gly Arg Met Glu Arg Cys Thr Cys Asp Asp Ser Pro  
485 490 495  
Gly Leu Glu Ser Arg Gln Ala Trp Gln Trp Gly Val Cys Gly Asp Asn  
500 505 510  
Leu Lys Tyr Ser Thr Lys Phe Leu Ser Asn Phe Leu Gly Ser Lys Arg  
515 520 525  
Gly Asn Lys Asp Leu Arg Ala Arg Ala Asp Ala His Asn Thr His Val  
530 535 540  
Gly Ile Lys Ala Val Lys Ser Gly Leu Arg Thr Thr Cys Lys Cys His  
545 550 555 560  
Gly Val Ser Gly Ser Cys Ala Val Arg Thr Cys Trp Lys Gln Leu Ser  
565 570 575  
Pro Phe Arg Glu Thr Gly Gln Val Leu Lys Leu Arg Tyr Asp Ser Ala  
580 585 590  
Val Lys Val Ser Ser Ala Thr Asn Glu Ala Leu Gly Arg Leu Glu Leu  
595 600 605  
Trp Ala Pro Ala Arg Gln Gly Ser Leu Thr Lys Gly Leu Ala Pro Arg  
610 615 620  
Ser Gly Asp Leu Val Tyr Met Glu Asp Ser Pro Ser Phe Cys Arg Pro  
625 630 635 640  
Ser Lys Tyr Ser Pro Gly Thr Ala Gly Arg Val Cys Ser Arg Glu Ala  
645 650 655  
Ser Cys Ser Ser Leu Cys Cys Gly Arg Gly Tyr Asp Thr Gln Ser Arg  
660 665 670

Leu	Val	Ala	Phe	Ser	Cys	His	Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	
						675		680				685				
Glu	Cys	Gln	Gln	Cys	Val	Gln	Glu	Glu	Leu	Val	Tyr	Thr	Cys	Lys	His	
						690		695				700				

<210> 27  
 <211> 361  
 <212> PRT  
 <213> Homo sapiens

<400> 27																
Met	Lys	Pro	Leu	Arg	Arg	Pro	Leu	Pro	Phe	Ile	Cys	Pro	Ser	Pro	Pro	
1										10					15	
Ser	Pro	Arg	Leu	Thr	Cys	Leu	Pro	Pro	Leu	Ala	Leu	Ser	Ser	Leu	Thr	
										20		25			30	
Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	Gly	Leu	Gly	Thr	Ala	Ala	Ala	
										35		40		45		
Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys	Gln	Cys	Asp	Leu	Leu	Lys	Leu	
										50		55		60		
Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	Arg	Glu	Pro	Gly	Leu	Ala	Glu	
										65		70		75		80
Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	Leu	Leu	Glu	Cys	Gln	Phe	Gln	
										85		90			95	
Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	Leu	Glu	Gly	Arg	Met	Gly	Leu	
										100		105			110	
Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	Phe	Leu	Tyr	Ala	Val	Ser	Ser	
										115		120			125	
Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	Ala	Cys	Ser	Ala	Gly	Arg	Met	
										130		135		140		
Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	Gly	Leu	Glu	Ser	Arg	Gln	Ala	
										145		150		155		160
Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	Leu	Lys	Tyr	Ser	Thr	Lys	Phe	
										165		170			175	
Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	Gly	Asn	Lys	Asp	Leu	Arg	Ala	
										180		185			190	
Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	Gly	Ile	Lys	Ala	Val	Lys	Ser	
										195		200			205	
Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	Gly	Val	Ser	Gly	Ser	Cys	Ala	
										210		215		220		
Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	Pro	Phe	Arg	Glu	Thr	Gly	Gln	
										225		230		235		240
Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	Val	Lys	Val	Ser	Ser	Ala	Thr	
										245		250			255	
Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	Trp	Ala	Pro	Ala	Arg	Gln	Gly	
										260		265			270	
Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	Ser	Gly	Asp	Leu	Val	Tyr	Met	
										275		280			285	
Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	Ser	Lys	Tyr	Ser	Pro	Gly	Thr	
										290		295		300		
Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	Ser	Cys	Ser	Ser	Leu	Cys	Cys	
										305		310		315		320
Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	Leu	Val	Ala	Phe	Ser	Cys	His	
										325		330			335	
Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	Glu	Cys	Gln	Gln	Cys	Val	Gln	
										340		345			350	

Glu Glu Leu Val Tyr Thr Cys Lys His  
355 360

<210> 28  
<211> 365  
<212> PRT  
<213> Homo sapiens

<400> 28  
Met Trp Leu Leu Leu Thr Thr Cys Leu Ile Cys Gly Thr Leu Asn  
1 5 10 15  
Ala Gly Gly Phe Leu Asp Leu Glu Asn Glu Val Asn Pro Glu Val Trp  
20 25 30  
Met Asn Thr Ser Glu Ile Ile Tyr Asn Gly Tyr Pro Ser Glu Glu  
35 40 45  
Tyr Glu Val Thr Thr Glu Asp Gly Tyr Ile Leu Leu Val Asn Arg Ile  
50 55 60  
Pro Tyr Gly Arg Thr His Ala Arg Ser Thr Ala Asp Ala Gly Tyr Asp  
65 70 75 80  
Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Arg His Lys  
85 90 95  
Thr Leu Ser Glu Thr Asp Glu Lys Phe Trp Ala Phe Ser Phe Asp Glu  
100 105 110  
Met Ala Lys Tyr Asp Leu Pro Gly Val Ile Asp Phe Ile Val Asn Lys  
115 120 125  
Thr Gly Gln Glu Lys Leu Tyr Phe Ile Gly His Ser Leu Gly Thr Thr  
130 135 140  
Ile Gly Phe Val Ala Phe Ser Thr Met Pro Glu Leu Ala Gln Arg Ile  
145 150 155 160  
Lys Met Asn Phe Ala Leu Gly Pro Thr Ile Ser Phe Lys Tyr Pro Thr  
165 170 175  
Gly Ile Phe Thr Arg Phe Phe Leu Leu Pro Asn Ser Ile Ile Lys Ala  
180 185 190  
Val Phe Gly Thr Lys Gly Phe Phe Leu Glu Asp Lys Lys Thr Lys Ile  
195 200 205  
Ala Ser Thr Lys Ile Cys Asn Asn Lys Ile Leu Trp Leu Ile Cys Ser  
210 215 220  
Glu Phe Met Ser Leu Trp Ala Gly Ser Asn Lys Lys Asn Met Asn Gln  
225 230 235 240  
Ser Arg Met Asp Val Tyr Met Ser His Ala Pro Thr Gly Ser Ser Val  
245 250 255  
His Asn Ile Leu His Ile Lys Gln Leu Tyr His Ser Asp Glu Phe Arg  
260 265 270  
Ala Tyr Asp Trp Gly Asn Asp Ala Asp Asn Met Lys His Tyr Asn Gln  
275 280 285  
Ser His Pro Pro Ile Tyr Asp Leu Thr Ala Met Lys Val Pro Thr Ala  
290 295 300  
Ile Trp Ala Gly Gly His Asp Val Leu Val Thr Pro Gln Asp Val Ala  
305 310 315 320  
Arg Ile Leu Pro Gln Ile Lys Ser Leu His Tyr Phe Lys Leu Leu Pro  
325 330 335  
Asp Trp Asn His Phe Asp Phe Val Trp Gly Leu Asp Ala Pro Gln Arg  
340 345 350  
Met Tyr Ser Glu Ile Ile Ala Leu Met Lys Ala Tyr Ser  
355 360 365

<210> 29  
 <211> 397  
 <212> PRT  
 <213> Homo sapiens

<400> 29

Met	Trp	Gln	Leu	Leu	Ala	Ala	Ala	Cys	Trp	Met	Leu	Leu	Leu	Gly	Ser
1					5					10				15	
Met	Tyr	Gly	Tyr	Asp	Lys	Lys	Gly	Asn	Asn	Ala	Asn	Pro	Glu	Ala	Asn
					20				25				30		
Met	Asn	Ile	Ser	Gln	Ile	Ile	Ser	Tyr	Trp	Gly	Tyr	Pro	Tyr	Glu	Glu
					35					40			45		
Tyr	Asp	Val	Thr	Thr	Lys	Asp	Gly	Tyr	Ile	Leu	Gly	Ile	Tyr	Arg	Ile
					50				55			60			
Pro	His	Gly	Arg	Gly	Cys	Pro	Gly	Arg	Thr	Ala	Pro	Lys	Pro	Ala	Val
					65				70			75			80
Tyr	Leu	Gln	His	Gly	Leu	Ile	Ala	Ser	Ala	Ser	Asn	Trp	Ile	Cys	Asn
					85				90				95		
Leu	Pro	Asn	Asn	Ser	Leu	Ala	Phe	Leu	Leu	Ala	Asp	Ser	Gly	Tyr	Asp
					100				105				110		
Val	Trp	Leu	Gly	Asn	Ser	Arg	Gly	Asn	Thr	Trp	Ser	Arg	Lys	His	Leu
					115				120				125		
Lys	Leu	Ser	Pro	Lys	Ser	Pro	Glu	Tyr	Trp	Ala	Phe	Ser	Leu	Asp	Glu
					130				135			140			
Met	Ala	Lys	Tyr	Asp	Leu	Pro	Ala	Thr	Ile	Asn	Phe	Ile	Ile	Glu	Lys
					145				150			155			160
Thr	Gly	Gln	Lys	Arg	Leu	Tyr	Tyr	Val	Gly	His	Ser	Gln	Gly	Thr	Thr
					165				170				175		
Ile	Ala	Phe	Ile	Ala	Phe	Ser	Thr	Asn	Pro	Glu	Leu	Ala	Lys	Lys	Ile
					180				185				190		
Lys	Ile	Phe	Phe	Ala	Leu	Ala	Pro	Val	Val	Thr	Val	Lys	Tyr	Thr	Gln
					195				200				205		
Ser	Pro	Met	Lys	Lys	Leu	Thr	Thr	Leu	Ser	Arg	Arg	Val	Val	Lys	Val
					210				215			220			
Leu	Phe	Gly	Asp	Lys	Met	Phe	His	Pro	His	Thr	Leu	Phe	Asp	Gln	Phe
					225				230			235			240
Ile	Ala	Thr	Lys	Val	Cys	Asn	Arg	Lys	Leu	Phe	Arg	Arg	Ile	Cys	Ser
					245				250				255		
Asn	Phe	Leu	Phe	Thr	Leu	Ser	Gly	Phe	Asp	Pro	Gln	Asn	Leu	Asn	Met
					260				265			270			
Ser	Arg	Leu	Asp	Val	Tyr	Leu	Ser	His	Asn	Pro	Ala	Gly	Thr	Ser	Val
					275				280			285			
Gln	Asn	Met	Leu	His	Trp	Ala	Gln	Leu	Tyr	His	Ser	Asp	Glu	Phe	Arg
					290				295			300			
Ala	Tyr	Asp	Trp	Gly	Asn	Asp	Ala	Asp	Asn	Met	Lys	His	Tyr	Asn	Gln
					305				310			315			320
Ser	His	Pro	Pro	Ile	Tyr	Asp	Leu	Thr	Ala	Met	Lys	Val	Pro	Thr	Ala
					325				330				335		
Ile	Trp	Ala	Gly	Gly	His	Asp	Val	Leu	Val	Thr	Pro	Gln	Asp	Val	Ala
					340				345			350			
Arg	Ile	Leu	Pro	Gln	Ile	Lys	Ser	Leu	His	Tyr	Phe	Lys	Leu	Leu	Pro
					355				360			365			
Asp	Trp	Asn	His	Phe	Asp	Phe	Val	Trp	Gly	Leu	Asp	Ala	Pro	Gln	Arg
					370				375			380			
Met	Tyr	Ser	Glu	Ile	Ile	Ala	Leu	Met	Lys	Ala	Tyr	Ser			
					385				390			395			

<210> 30  
<211> 3705  
<212> PRT  
<213> Homo sapiens

<400> 30  
Met Ala Lys Arg Leu Cys Ala Gly Ser Ala Leu Cys Val Arg Gly Pro  
1 5 10 15  
Arg Gly Pro Ala Pro Leu Leu Leu Val Gly Leu Ala Leu Leu Gly Ala  
20 25 30  
Ala Arg Ala Arg Glu Glu Ala Gly Gly Phe Ser Leu His Pro Pro  
35 40 45  
Tyr Phe Asn Leu Ala Glu Gly Ala Arg Ile Ala Ala Ser Ala Thr Cys  
50 55 60  
Gly Glu Glu Ala Pro Ala Arg Gly Ser Pro Arg Pro Thr Glu Asp Leu  
65 70 75 80  
Tyr Cys Lys Leu Val Gly Gly Pro Val Ala Gly Gly Asp Pro Asn Gln  
85 90 95  
Thr Ile Arg Gly Gln Tyr Cys Asp Ile Cys Thr Ala Ala Asn Ser Asn  
100 105 110  
Lys Ala His Pro Ala Ser Asn Ala Ile Asp Gly Thr Glu Arg Trp Trp  
115 120 125  
Gln Ser Pro Pro Leu Ser Arg Gly Leu Glu Tyr Asn Glu Val Asn Val  
130 135 140  
Thr Leu Asp Leu Gly Gln Val Phe His Val Ala Tyr Val Leu Ile Lys  
145 150 155 160  
Phe Ala Asn Ser Pro Arg Pro Asp Leu Trp Val Leu Glu Arg Ser Met  
165 170 175  
Asp Phe Gly Arg Thr Tyr Gln Pro Trp Gln Phe Phe Ala Ser Ser Lys  
180 185 190  
Arg Asp Cys Leu Glu Arg Phe Gly Pro Gln Thr Leu Glu Arg Ile Thr  
195 200 205  
Arg Asp Asp Ala Ala Ile Cys Thr Thr Glu Tyr Ser Arg Ile Val Pro  
210 215 220  
Leu Glu Asn Gly Glu Ile Val Val Ser Leu Val Asn Gly Arg Pro Gly  
225 230 235 240  
Ala Met Asn Phe Ser Tyr Ser Pro Leu Leu Arg Glu Phe Thr Lys Ala  
245 250 255  
Thr Asn Val Arg Leu Arg Phe Leu Arg Thr Asn Thr Leu Leu Gly His  
260 265 270  
Leu Met Gly Lys Ala Leu Arg Asp Pro Thr Val Thr Arg Arg Tyr Tyr  
275 280 285  
Tyr Ser Ile Lys Asp Ile Ser Ile Gly Gly Arg Cys Val Cys His Gly  
290 295 300  
His Ala Asp Ala Cys Asp Ala Lys Asp Pro Thr Asp Pro Phe Arg Leu  
305 310 315 320  
Gln Cys Thr Cys Gln His Asn Thr Cys Gly Gly Thr Cys Asp Arg Cys  
325 330 335  
Cys Pro Gly Phe Asn Gln Gln Pro Trp Lys Pro Ala Thr Ala Asn Ser  
340 345 350  
Ala Asn Glu Cys Gln Ser Cys Asn Cys Tyr Gly His Ala Thr Asp Cys  
355 360 365  
Tyr Tyr Asp Pro Glu Val Asp Arg Arg Arg Ala Ser Gln Ser Leu Asp  
370 375 380

Gly Thr Tyr Gln Gly Gly Gly Val Cys Ile Asp Cys Gln His His Thr  
385 390 395 400  
Thr Gly Val Asn Cys Glu Arg Cys Leu Pro Gly Phe Tyr Arg Ser Pro  
405 410 415  
Asn His Pro Leu Asp Ser Pro His Val Cys Arg Arg Cys Asn Cys Glu  
420 425 430  
Ser Asp Phe Thr Asp Gly Thr Cys Glu Asp Leu Thr Gly Arg Cys Tyr  
435 440 445  
Cys Arg Pro Asn Phe Ser Gly Glu Arg Cys Asp Val Cys Ala Glu Gly  
450 455 460  
Phe Thr Gly Phe Pro Ser Cys Tyr Pro Thr Pro Ser Ser Ser Asn Asp  
465 470 475 480  
Thr Arg Glu Gln Val Leu Pro Ala Gly Gln Ile Val Asn Cys Asp Cys  
485 490 495  
Ser Ala Ala Gly Thr Gln Gly Asn Ala Cys Arg Lys Asp Pro Arg Val  
500 505 510  
Gly Arg Cys Leu Cys Lys Pro Asn Phe Gln Gly Thr His Cys Glu Leu  
515 520 525  
Cys Ala Pro Gly Phe Tyr Gly Pro Gly Cys Gln Pro Cys Gln Cys Ser  
530 535 540  
Ser Pro Gly Val Ala Asp Asp Arg Cys Asp Pro Asp Thr Gly Gln Cys  
545 550 555 560  
Arg Cys Arg Val Gly Phe Glu Gly Ala Thr Cys Asp Arg Cys Ala Pro  
565 570 575  
Gly Tyr Phe His Phe Pro Leu Cys Gln Leu Cys Gly Cys Ser Pro Ala  
580 585 590  
Gly Thr Leu Pro Glu Gly Cys Asp Glu Ala Gly Arg Cys Leu Cys Gln  
595 600 605  
Pro Glu Phe Ala Gly Pro His Cys Asp Arg Cys Arg Pro Gly Tyr His  
610 615 620  
Gly Phe Pro Asn Cys Gln Ala Cys Thr Cys Asp Pro Arg Gly Ala Leu  
625 630 635 640  
Asp Gln Leu Cys Gly Ala Gly Leu Cys Arg Cys Arg Pro Gly Tyr  
645 650 655  
Thr Gly Thr Ala Cys Gln Glu Cys Ser Pro Gly Phe His Gly Phe Pro  
660 665 670  
Ser Cys Val Pro Cys His Cys Ser Ala Glu Gly Ser Leu His Ala Ala  
675 680 685  
Cys Asp Pro Arg Ser Gly Gln Cys Ser Cys Arg Pro Arg Val Thr Gly  
690 695 700  
Leu Arg Cys Asp Thr Cys Val Pro Gly Ala Tyr Asn Phe Pro Tyr Cys  
705 710 715 720  
Glu Ala Gly Ser Cys His Pro Ala Gly Leu Ala Pro Val Asp Pro Ala  
725 730 735  
Leu Pro Glu Ala Gln Val Pro Cys Met Cys Arg Ala His Val Glu Gly  
740 745 750  
Pro Ser Cys Asp Arg Cys Lys Pro Gly Phe Trp Gly Leu Ser Pro Ser  
755 760 765  
Asn Pro Glu Gly Cys Thr Arg Cys Ser Cys Asp Leu Arg Gly Thr Leu  
770 775 780  
Gly Gly Val Ala Glu Cys Gln Pro Gly Thr Gly Gln Cys Phe Cys Lys  
785 790 795 800  
Pro His Val Cys Gly Gln Ala Cys Ala Ser Cys Lys Asp Gly Phe Phe  
805 810 815  
Gly Leu Asp Gln Ala Asp Tyr Phe Gly Cys Arg Ser Cys Arg Cys Asp  
820 825 830

Ile Gly Gly Ala Leu Gly Gln Ser Cys Glu Pro Arg Thr Gly Val Cys  
       835                  840                  845  
 Arg Cys Arg Pro Asn Thr Gln Gly Pro Thr Cys Ser Glu Pro Ala Arg  
       850                  855                  860  
 Asp His Tyr Leu Pro Asp Leu His His Leu Arg Leu Glu Leu Glu Glu  
       865                  870                  875                  880  
 Ala Ala Thr Pro Glu Gly His Ala Val Arg Phe Gly Phe Asn Pro Leu  
       885                  890                  895  
 Glu Phe Glu Asn Phe Ser Trp Arg Gly Tyr Ala Gln Met Ala Pro Val  
       900                  905                  910  
 Gln Pro Arg Ile Val Ala Arg Leu Asn Leu Thr Ser Pro Asp Leu Phe  
       915                  920                  925  
 Trp Leu Val Phe Arg Tyr Val Asn Arg Gly Ala Met Ser Val Ser Gly  
       930                  935                  940  
 Arg Val Ser Val Arg Glu Glu Gly Arg Ser Ala Thr Cys Ala Asn Cys  
       945                  950                  955                  960  
 Thr Ala Gln Ser Gln Pro Val Ala Phe Pro Pro Ser Thr Glu Pro Ala  
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 Phe Ile Thr Val Pro Gln Arg Gly Phe Gly Glu Pro Phe Val Leu Asn  
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 Pro Gly Thr Trp Ala Leu Arg Val Glu Ala Glu Gly Val Leu Leu Asp  
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 Tyr Val Val Leu Leu Pro Ser Ala Tyr Tyr Glu Ala Ala Leu Leu Gln  
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 Leu Arg Val Thr Glu Ala Cys Thr Tyr Arg Pro Ser Ala Gln Gln Ser  
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 Gly Asp Asn Cys Leu Leu Tyr Thr His Leu Pro Leu Asp Gly Phe Pro  
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 Ser Ala Ala Gly Leu Glu Ala Leu Cys Arg Gln Asp Asn Ser Leu Pro  
       1060                1065                1070  
 Arg Pro Cys Pro Thr Glu Gln Leu Ser Pro Ser His Pro Pro Leu Ile  
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 Thr Cys Thr Gly Ser Asp Val Asp Val Gln Leu Gln Val Ala Val Pro  
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 Gln Pro Gly Arg Tyr Ala Leu Val Val Glu Tyr Ala Asn Glu Asp Ala  
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 Arg Gln Glu Val Gly Val Ala Val His Thr Pro Gln Arg Ala Pro Gln  
       1125                1130                1135  
 Gln Gly Leu Leu Ser Leu His Pro Cys Leu Tyr Ser Thr Leu Cys Arg  
       1140                1145                1150  
 Gly Thr Ala Arg Asp Thr Gln Asp His Leu Ala Val Phe His Leu Asp  
       1155                1160                1165  
 Ser Glu Ala Ser Val Arg Leu Thr Ala Glu Gln Ala Arg Phe Phe Leu  
       1170                1175                1180  
 His Gly Val Thr Leu Val Pro Ile Glu Glu Phe Ser Pro Glu Phe Val  
       1185                1190                1195                1200  
 Glu Pro Arg Val Ser Cys Ile Ser Ser His Gly Ala Phe Gly Pro Asn  
       1205                1210                1215  
 Ser Ala Ala Cys Leu Pro Ser Arg Phe Pro Lys Pro Pro Gln Pro Ile  
       1220                1225                1230  
 Ile Leu Arg Asp Cys Gln Val Ile Pro Leu Pro Pro Gly Leu Pro Leu  
       1235                1240                1245  
 Thr His Ala Gln Asp Leu Thr Pro Ala Met Ser Pro Ala Gly Pro Arg  
       1250                1255                1260  
 Pro Arg Pro Pro Thr Ala Val Asp Pro Asp Ala Glu Pro Thr Leu Leu  
       1265                1270                1275                1280

Arg Glu Pro Gln Ala Thr Val Val Phe Thr Thr His Val Pro Thr Leu  
                   1285                  1290                  1295  
 Gly Arg Tyr Ala Phe Leu Leu His Gly Tyr Gln Pro Ala His Pro Thr  
                   1300                  1305                  1310  
 Phe Pro Val Glu Val Leu Ile Asn Ala Gly Arg Val Trp Gln Gly His  
                   1315                  1320                  1325  
 Ala Asn Ala Ser Phe Cys Pro His Gly Tyr Gly Cys Arg Thr Leu Val  
                   1330                  1335                  1340  
 Val Cys Glu Gly Gln Ala Leu Leu Asp Val Thr His Ser Glu Leu Thr  
                   1345                  1350                  1355                  1360  
 Val Thr Val Arg Val Pro Lys Gly Arg Trp Leu Trp Leu Asp Tyr Val  
                   1365                  1370                  1375  
 Leu Val Val Pro Glu Asn Val Tyr Ser Phe Gly Tyr Leu Arg Glu Glu  
                   1380                  1385                  1390  
 Pro Leu Asp Lys Ser Tyr Asp Phe Ile Ser His Cys Ala Ala Gln Gly  
                   1395                  1400                  1405  
 Tyr His Ile Ser Pro Ser Ser Ser Leu Phe Cys Arg Asn Ala Ala  
                   1410                  1415                  1420  
 Ala Ser Leu Ser Leu Phe Tyr Asn Asn Gly Ala Arg Pro Cys Gly Cys  
                   1425                  1430                  1435                  1440  
 His Glu Val Gly Ala Thr Gly Pro Thr Cys Glu Pro Phe Gly Gly Gln  
                   1445                  1450                  1455  
 Cys Pro Cys His Ala His Val Ile Gly Arg Asp Cys Ser Arg Cys Ala  
                   1460                  1465                  1470  
 Thr Gly Tyr Trp Gly Phe Pro Asn Cys Arg Pro Cys Asp Cys Gly Ala  
                   1475                  1480                  1485  
 Arg Leu Cys Asp Glu Leu Thr Gly Gln Cys Ile Cys Pro Pro Arg Thr  
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 Ile Pro Pro Asp Cys Leu Leu Cys Gln Pro Gln Thr Phe Gly Cys His  
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 Pro Leu Val Gly Cys Glu Glu Cys Asn Cys Ser Gly Pro Gly Ile Gln  
                   1525                  1530                  1535  
 Glu Leu Thr Asp Pro Thr Cys Asp Thr Asp Ser Gly Gln Cys Lys Cys  
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 Arg Pro Asn Val Thr Gly Arg Arg Cys Asp Thr Cys Ser Pro Gly Phe  
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 His Gly Tyr Pro Arg Cys Arg Pro Cys Asp Cys His Glu Ala Gly Thr  
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 Ala Pro Gly Val Cys Asp Pro Leu Thr Gly Gln Cys Tyr Cys Lys Glu  
                   1585                  1590                  1595                  1600  
 Asn Val Gln Gly Pro Lys Cys Asp Gln Cys Ser Leu Gly Thr Phe Ser  
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 Leu Asp Ala Ala Asn Pro Lys Gly Cys Thr Arg Cys Phe Cys Phe Gly  
                   1620                  1625                  1630  
 Ala Thr Glu Arg Cys Arg Ser Ser Tyr Thr Arg Gln Glu Phe Val  
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 Asp Met Glu Gly Trp Val Leu Leu Ser Thr Asp Arg Gln Val Val Pro  
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 His Glu Arg Gln Pro Gly Thr Glu Met Leu Arg Ala Asp Leu Arg His  
                   1665                  1670                  1675                  1680  
 Val Pro Glu Ala Val Pro Glu Ala Phe Pro Glu Leu Tyr Trp Gln Ala  
                   1685                  1690                  1695  
 Pro Pro Ser Tyr Leu Gly Asp Arg Val Ser Ser Tyr Gly Gly Thr Leu  
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 Arg Tyr Glu Leu His Ser Glu Thr Gln Arg Gly Asp Val Phe Val Pro  
                   1715                  1720                  1725

Met Glu Ser Arg Pro Asp Val Val Leu Gln Gly Asn Gln Met Ser Ile  
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 Thr Phe Leu Glu Pro Ala Tyr Pro Thr Pro Gly His Val His Arg Gly  
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 Thr Val Ser Arg Glu Glu Leu Met Met Val Leu Ala Ser Leu Glu Gln  
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 Ser Cys Gln Glu Cys Ala Pro Gly Phe Tyr Arg Asp Val Lys Gly Leu  
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 1860 1865 1870  
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 Gly Ala His Cys Glu Arg Cys Gln Ala Gly Phe Val Ser Ser Arg Asp  
 1890 1895 1900  
 Asp Pro Ser Ala Pro Cys Val Ser Cys Pro Cys Pro Leu Ser Val Pro  
 1905 1910 1915 1920  
 Ser Asn Asn Phe Ala Glu Gly Cys Val Leu Arg Gly Gly Arg Thr Gln  
 1925 1930 1935  
 Cys Leu Cys Lys Pro Gly Tyr Ala Gly Ala Ser Cys Glu Arg Cys Ala  
 1940 1945 1950  
 Pro Gly Phe Phe Gly Asn Pro Leu Val Leu Gly Ser Ser Cys Gln Pro  
 1955 1960 1965  
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 Asp Pro Leu Thr Gly Ala Cys Arg Gly Cys Leu Arg His Thr Thr Gly  
 1985 1990 1995 2000  
 Pro Arg Cys Glu Ile Cys Ala Pro Gly Phe Tyr Gly Asn Ala Leu Leu  
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 Gly Cys Arg Arg Cys Gln Cys Pro Gly Gly Arg Cys Asp Pro His Thr  
 2115 2120 2125  
 Gly Arg Cys Asn Cys Pro Pro Gly Leu Ser Gly Glu Arg Cys Asp Thr  
 2130 2135 2140  
 Cys Ser Gln Gln His Gln Val Pro Val Pro Gly Gly Pro Val Gly His  
 2145 2150 2155 2160  
 Ser Ile His Cys Glu Val Cys Asp His Cys Val Val Leu Leu Leu Asp  
 2165 2170 2175

Asp Leu Glu Arg Ala Gly Ala Leu Leu Pro Ala Ile His Glu Gln Leu  
2180 2185 2190  
Arg Gly Ile Asn Ala Ser Ser Met Ala Trp Ala Arg Leu His Arg Leu  
2195 2200 2205  
Asn Ala Ser Ile Ala Asp Leu Gln Ser Gln Leu Arg Ser Pro Leu Gly  
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Pro Arg His Glu Thr Ala Gln Gln Leu Glu Val Leu Glu Gln Gln Ser  
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Thr Ser Leu Gly Gln Asp Ala Arg Arg Leu Gly Gly Gln Ala Gly Ala  
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Pro Arg Pro Pro Arg Ala Pro Gly Gly Phe His Leu Tyr Gln Ala Ser  
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Gln Leu Leu Ala Gly Thr Glu Ala Thr Leu Gly His Ala Lys Thr Leu  
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Gln Thr Gly His Leu Gly Leu Ala Asn Ala Ser Ala Pro Ser Gly Glu  
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Gln Pro Pro Pro Pro Leu Thr Ser Ala Ser Lys Ala Ile Gln Val Phe  
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Thr Val Tyr Ser Val Glu Gln Asp Asn Asp Leu Glu Leu Ala Asp Ala  
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Tyr Tyr Leu Gly Gly Val Pro Pro Asp Gln Leu Pro Pro Ser Leu Arg  
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3345 3350 3355 3360  
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3425 3430 3435 3440  
Arg Trp Glu Lys Asn Arg Ile Leu Leu Val Thr Asp Gly Ala Arg Ala  
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Trp Ser Gln Glu Gly Pro His Arg Gln His Gln Gly Ala Glu His Pro  
3460 3465 3470  
Gln Pro His Thr Leu Phe Val Gly Gly Leu Pro Ala Ser Ser His Ser  
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Ser Lys Leu Pro Val Thr Val Gly Phe Ser Gly Cys Val Lys Arg Leu  
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Arg Leu His Gly Arg Pro Leu Gly Ala Pro Thr Arg Met Ala Gly Val  
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Thr Pro Cys Ile Leu Gly Pro Leu Glu Ala Gly Leu Phe Phe Pro Gly  
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 Ser Gly Gly Val Ile Thr Leu Asp Leu Pro Gly Ala Thr Leu Pro Asp  
                   3540                  3545                  3550  
 Val Gly Leu Glu Leu Glu Val Arg Pro Leu Ala Val Thr Gly Leu Ile  
                   3555                  3560                  3565  
 Phe His Leu Gly Gln Ala Arg Thr Pro Pro Tyr Leu Gln Leu Gln Val  
                   3570                  3575                  3580  
 Thr Glu Lys Gln Val Leu Leu Arg Ala Asp Asp Gly Ala Gly Glu Phe  
                   3585                  3590                  3595                  3600  
 Ser Thr Ser Val Thr Arg Pro Ser Val Leu Cys Asp Gly Gln Trp His  
                   3605                  3610                  3615  
 Arg Leu Ala Val Met Lys Ser Gly Asn Val Leu Arg Leu Glu Val Asp  
                   3620                  3625                  3630  
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 Ala Pro Ala Pro Leu Tyr Leu Gly Gly Leu Pro Glu Pro Met Ala Val  
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 Gln Pro Trp Pro Pro Ala Tyr Cys Gly Cys Met Arg Arg Leu Ala Val  
                   3665                  3670                  3675                  3680  
 Asn Arg Ser Pro Val Ala Met Thr Arg Ser Val Glu Val His Gly Ala  
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 <212> PRT  
 <213> Homo sapiens

<400> 31  
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     20                  25                  30  
 Ala Arg Ala Arg Glu Glu Ala Gly Gly Phe Ser Leu His Pro Pro  
     35                  40                  45  
 Tyr Phe Asn Leu Ala Glu Gly Ala Arg Ile Ala Ala Ser Ala Thr Cys  
     50                  55                  60  
 Gly Glu Glu Ala Pro Ala Arg Gly Ser Pro Arg Pro Thr Glu Asp Leu  
     65                  70                  75                  80  
 Tyr Cys Lys Leu Val Gly Gly Pro Val Ala Gly Gly Asp Pro Asn Gln  
     85                  90                  95  
 Thr Ile Arg Gly Gln Tyr Cys Asp Ile Cys Thr Ala Ala Asn Ser Asn  
     100                  105                  110  
 Lys Ala His Pro Ala Ser Asn Ala Ile Asp Gly Thr Glu Arg Trp Trp  
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 Gln Ser Pro Pro Leu Ser Arg Gly Leu Glu Tyr Asn Glu Val Asn Val  
     130                  135                  140  
 Thr Leu Asp Leu Gly Gln Val Phe His Val Ala Tyr Val Leu Ile Lys  
     145                  150                  155                  160  
 Phe Ala Asn Ser Pro Arg Pro Asp Leu Trp Val Leu Glu Arg Ser Met  
     165                  170                  175  
 Asp Phe Gly Arg Thr Tyr Gln Pro Trp Gln Phe Phe Ala Ser Ser Lys  
     180                  185                  190

Arg Asp Cys Leu Glu Arg Phe Gly Pro Gln Thr Leu Glu Arg Ile Thr  
195 200 205  
Arg Asp Asp Ala Ala Ile Cys Thr Thr Glu Tyr Ser Arg Ile Val Pro  
210 215 220  
Leu Glu Asn Gly Glu Ile Val Val Ser Leu Val Asn Gly Arg Pro Gly  
225 230 235 240  
Ala Met Asn Phe Ser Tyr Ser Pro Leu Leu Arg Glu Phe Thr Lys Ala  
245 250 255  
Thr Asn Val Arg Leu Arg Phe Leu Arg Thr Asn Thr Leu Leu Gly His  
260 265 270  
Leu Met Gly Lys Ala Leu Arg Asp Pro Thr Val Thr Arg Arg Tyr Tyr  
275 280 285  
Tyr Ser Ile Lys Asp Ile Ser Ile Gly Gly Arg Cys Val Cys His Gly  
290 295 300  
His Ala Asp Ala Cys Asp Ala Lys Asp Pro Thr Asp Pro Phe Arg Leu  
305 310 315 320  
Gln Cys Thr Cys Gln His Asn Thr Cys Gly Gly Thr Cys Asp Arg Cys  
325 330 335  
Cys Pro Gly Phe Asn Gln Gln Pro Trp Lys Pro Ala Thr Ala Asn Ser  
340 345 350  
Ala Asn Glu Cys Gln Ser Cys Asn Cys Tyr Gly His Ala Thr Asp Cys  
355 360 365  
Tyr Tyr Asp Pro Glu Val Asp Arg Arg Arg Ala Ser Gln Ser Leu Asp  
370 375 380  
Gly Thr Tyr Gln Gly Gly Val Cys Ile Asp Cys Gln His His Thr  
385 390 395 400  
Thr Gly Val Asn Cys Glu Arg Cys Leu Pro Gly Phe Tyr Arg Ser Pro  
405 410 415  
Asn His Pro Leu Asp Ser Pro His Val Cys Arg Arg Cys Asn Cys Glu  
420 425 430  
Ser Asp Phe Thr Asp Gly Thr Cys Glu Asp Leu Thr Gly Arg Cys Tyr  
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Cys Arg Pro Asn Phe Ser Gly Glu Arg Cys Asp Val Cys Ala Glu Gly  
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Phe Thr Gly Phe Pro Ser Cys Tyr Pro Thr Pro Ser Ser Ser Asn Asp  
465 470 475 480  
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485 490 495  
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Gly Arg Cys Leu Cys Lys Pro Asn Phe Gln Gly Thr His Cys Glu Leu  
515 520 525  
Cys Ala Pro Gly Phe Tyr Gly Pro Gly Cys Gln Pro Cys Gln Cys Ser  
530 535 540  
Ser Pro Gly Val Ala Asp Asp Arg Cys Asp Pro Asp Thr Gly Gln Cys  
545 550 555 560  
Arg Cys Arg Val Gly Phe Glu Gly Ala Thr Cys Asp Arg Cys Ala Pro  
565 570 575  
Gly Tyr Phe His Phe Pro Leu Cys Gln Leu Cys Gly Cys Ser Pro Ala  
580 585 590  
Gly Thr Leu Pro Glu Gly Cys Asp Glu Ala Gly Arg Cys Leu Cys Gln  
595 600 605  
Pro Glu Phe Ala Gly Pro His Cys Asp Arg Cys Arg Pro Gly Tyr His  
610 615 620  
Gly Phe Pro Asn Cys Gln Ala Cys Thr Cys Asp Pro Arg Gly Ala Leu  
625 630 635 640

Asp	Gln	Leu	Cys	Gly	Ala	Gly	Gly	Leu	Cys	Arg	Cys	Arg	Pro	Gly	Tyr
				645				650					655		
Thr	Gly	Thr	Ala	Cys	Gln	Glu	Cys	Ser	Pro	Gly	Phe	His	Gly	Phe	Pro
			660					665				670			
Ser	Cys	Val	Pro	Cys	His	Cys	Ser	Ala	Glu	Gly	Ser	Leu	His	Ala	Ala
			675				680				685				
Cys	Asp	Pro	Arg	Ser	Gly	Gln	Cys	Ser	Cys	Arg	Pro	Arg	Val	Thr	Gly
		690			695				700						
Leu	Arg	Cys	Asp	Thr	Cys	Val	Pro	Gly	Ala	Tyr	Asn	Phe	Pro	Tyr	Cys
705				710					715				720		
Glu	Ala	Gly	Ser	Cys	His	Pro	Ala	Gly	Leu	Ala	Pro	Val	Asp	Pro	Ala
			725					730				735			
Leu	Pro	Glu	Ala	Gln	Val	Pro	Cys	Met	Cys	Arg	Ala	His	Val	Glu	Gly
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Pro	Ser	Cys	Asp	Arg	Cys	Lys	Pro	Gly	Phe	Trp	Gly	Leu	Ser	Pro	Ser
			755				760				765				
Asn	Pro	Glu	Gly	Cys	Thr	Arg	Cys	Ser	Cys	Asp	Leu	Arg	Gly	Thr	Leu
			770			775				780					
Gly	Gly	Val	Ala	Glu	Cys	Gln	Pro	Gly	Thr	Gly	Gln	Cys	Phe	Cys	Lys
785				790					795				800		
Pro	His	Val	Cys	Gly	Gln	Ala	Cys	Ala	Ser	Cys	Lys	Asp	Gly	Phe	Phe
				805					810				815		
Gly	Leu	Asp	Gln	Ala	Asp	Tyr	Phe	Gly	Cys	Arg	Ser	Cys	Arg	Cys	Asp
			820					825				830			
Ile	Gly	Gly	Ala	Leu	Gly	Gln	Ser	Cys	Glu	Pro	Arg	Thr	Gly	Val	Cys
			835				840				845				
Arg	Cys	Arg	Pro	Asn	Thr	Gln	Gly	Pro	Thr	Cys	Ser	Glu	Pro	Ala	Arg
			850			855				860					
Asp	His	Tyr	Leu	Pro	Asp	Leu	His	His	Leu	Arg	Leu	Glu	Leu	Glu	Glu
865				870					875				880		
Ala	Ala	Thr	Pro	Glu	Gly	His	Ala	Val	Arg	Phe	Gly	Phe	Asn	Pro	Leu
				885					890				895		
Glu	Phe	Glu	Asn	Phe	Ser	Trp	Arg	Gly	Tyr	Ala	Gln	Met	Ala	Pro	Val
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Gln	Pro	Arg	Ile	Val	Ala	Arg	Leu	Asn	Leu	Thr	Ser	Pro	Asp	Leu	Phe
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Trp	Leu	Val	Phe	Arg	Tyr	Val	Asn	Arg	Gly	Ala	Met	Ser	Val	Ser	Gly
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Arg	Val	Ser	Val	Arg	Glu	Glu	Gly	Arg	Ser	Ala	Thr	Cys	Ala	Asn	Cys
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Thr	Ala	Gln	Ser	Gln	Pro	Val	Ala	Phe	Pro	Pro	Ser	Thr	Glu	Pro	Ala
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Phe	Ile	Thr	Val	Pro	Gln	Arg	Gly	Phe	Gly	Glu	Pro	Phe	Val	Leu	Asn
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Pro	Gly	Thr	Trp	Ala	Leu	Arg	Val	Glu	Ala	Glu	Gly	Val	Leu	Leu	Asp
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Tyr	Val	Val	Leu	Leu	Pro	Ser	Ala	Tyr	Tyr	Glu	Ala	Ala	Leu	Leu	Gln
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Gly	Asp	Asn	Cys	Leu	Leu	Tyr	Thr	His	Leu	Pro	Leu	Asp	Gly	Phe	Pro
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Ser	Ala	Ala	Gly	Leu	Glu	Ala	Leu	Cys	Arg	Gln	Asp	Asn	Ser	Leu	Pro
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Arg	Pro	Cys	Pro	Thr	Glu	Gln	Leu	Ser	Pro	Ser	His	Pro	Pro	Leu	Ile
			1075				1080				1085				

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 Gln Pro Gly Arg Tyr Ala Leu Val Val Glu Tyr Ala Asn Glu Asp Ala  
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 1125 1130 1135  
 Gln Gly Leu Leu Ser Leu His Pro Cys Leu Tyr Ser Thr Leu Cys Arg  
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 Gly Thr Ala Arg Asp Thr Gln Asp His Leu Ala Val Phe His Leu Asp  
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 Ser Glu Ala Ser Val Arg Leu Thr Ala Glu Gln Ala Arg Phe Phe Leu  
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 His Gly Val Thr Leu Val Pro Ile Glu Glu Phe Ser Pro Glu Phe Val  
 1185 1190 1195 1200  
 Glu Pro Arg Val Ser Cys Ile Ser Ser His Gly Ala Phe Gly Pro Asn  
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 Ser Ala Ala Cys Leu Pro Ser Arg Phe Pro Lys Pro Pro Gln Pro Ile  
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 Ile Leu Arg Asp Cys Gln Val Ile Pro Leu Pro Pro Gly Leu Pro Leu  
 1235 1240 1245  
 Thr His Ala Gln Asp Leu Thr Pro Ala Met Ser Pro Ala Gly Pro Arg  
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 1285 1290 1295  
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 Tyr His Ile Ser Pro Ser Ser Ser Leu Phe Cys Arg Asn Ala Ala  
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 Cys Asp Cys Ser Gly Asn Gly Asp Pro Asn Leu Leu Phe Ser Asp Cys  
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Asp Pro Leu Thr Gly Ala Cys Arg Gly Cys Leu Arg His Thr Thr Gly  
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 2005 2010 2015  
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 Gly Thr Arg Asp Gln Ala Ser Gln Leu Leu Ala Gly Thr Glu Ala Thr  
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 2385 2390 2395 2400  
 Glu Leu Asn Ser Arg Asn Gln Glu Arg Leu Glu Glu Ala Leu Gln Arg  
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 Lys Gln Glu Leu Ser Arg Asp Asn Ala Thr Leu Gln Ala Thr Leu His  
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Ala Ala Arg Asp Thr Leu Ala Ser Val Phe Arg Leu Leu His Ser Leu  
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Asp Gln Ala Lys Glu Glu Leu Glu Arg Leu Ala Ala Ser Leu Asp Gly  
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 Leu Gly Thr Arg Leu Arg Ala Gln Ser Arg Gln Arg Ser Arg Pro Gly  
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 Val Thr Asp Gly Ala Arg Ala Trp Ser Gln Glu Gly Pro His Arg Gln  
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 His Gln Gly Ala Glu His Pro Gln Pro His Thr Leu Phe Val Gly Gly  
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 Ser Gly Cys Val Lys Arg Leu Arg Leu His Gly Arg Pro Leu Gly Ala  
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 Ala Gly Leu Phe Phe Pro Gly Ser Gly Gly Val Ile Thr Leu Asp Leu  
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 Pro Tyr Leu Gln Leu Gln Val Thr Glu Lys Gln Val Leu Leu Arg Ala  
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 Thr Ile Leu Gln Gly Gly Val Gly Ile Pro His Met His Trp Tyr Gly  
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 Thr Lys Asn Phe Leu His Arg Asp Ile Lys Pro Asp Asn Phe Leu Met  
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 Glu Asp Lys His Leu Ile Gly Thr Val Arg Tyr Ala Ser Ile Asn Ala  
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 Tyr Val Phe Met Tyr Phe Asn Arg Thr Ser Leu Pro Trp Gln Gly Leu  
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 Asp Tyr Met Tyr Leu Arg Gln Leu Phe Arg Ile Leu Phe Arg Thr Leu  
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 Pro Lys Cys Ile Ile Ser Leu Glu Val Met Ser Ser Met Glu Ile  
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 Cys Val Ile Lys Val Glu Ile Lys Asp Leu Asn Asp Asn Ala Pro Ser  
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 Phe Pro Ala Ala Gln Ile Glu Leu Glu Ile Ser Glu Ala Ala Ser Pro  
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 Gly Thr Arg Ile Pro Leu Asp Ser Ala Tyr Asp Pro Asp Ser Gly Ser  
     145            150            155            160  
 Phe Gly Val Gln Thr Tyr Glu Leu Thr Pro Asn Glu Leu Phe Gly Leu  
     165            170            175  
 Glu Ile Lys Thr Arg Gly Asp Gly Ser Arg Phe Ala Glu Leu Val Val  
     180            185            190  
 Glu Lys Ser Leu Asp Arg Glu Thr Gln Ser His Tyr Ser Phe Arg Ile  
     195            200            205  
 Thr Ala Leu Asp Gly Gly Asp Pro Pro Arg Leu Gly Thr Val Gly Leu  
     210            215            220  
 Ser Ile Lys Val Thr Asp Ser Asn Asp Asn Asn Pro Val Phe Ser Glu  
     225            230            235            240  
 Ser Thr Tyr Ala Val Ser Val Pro Glu Asn Ser Pro Pro Asn Thr Pro  
     245            250            255  
 Val Ile Arg Leu Asn Ala Ser Asp Pro Asp Glu Gly Thr Asn Gly Gln  
     260            265            270  
 Val Val Tyr Ser Phe Tyr Gly Tyr Val Asn Asp Arg Thr Arg Glu Leu  
     275            280            285  
 Phe Gln Ile Asp Pro His Ser Gly Leu Val Thr Val Thr Gly Ala Leu  
     290            295            300  
 Asp Tyr Glu Glu Gly His Val Tyr Glu Leu Asp Val Gln Ala Lys Asp  
     305            310            315            320  
 Leu Gly Pro Asn Ser Ile Pro Ala His Cys Lys Val Thr Val Ser Val  
     325            330            335  
 Leu Asp Thr Asn Asp Asn Pro Pro Val Ile Asn Leu Leu Ser Val Asn  
     340            345            350  
 Ser Glu Leu Val Glu Val Ser Glu Ser Ala Pro Pro Gly Tyr Val Ile  
     355            360            365  
 Ala Leu Val Arg Val Ser Asp Arg Asp Ser Gly Leu Asn Gly Arg Val  
     370            375            380  
 Gln Cys Arg Leu Leu Gly Asn Val Pro Phe Arg Leu Gln Glu Tyr Glu  
     385            390            395            400  
 Ser Phe Ser Thr Ile Leu Val Asp Gly Arg Leu Asp Arg Glu Gln His  
     405            410            415  
 Asp Gln Tyr Asn Leu Thr Ile Gln Ala Arg Asp Gly Gly Val Pro Met  
     420            425            430  
 Leu Gln Ser Ala Lys Ser Phe Thr Val Leu Ile Thr Asp Glu Asn Asp  
     435            440            445  
 Asn His Pro His Phe Ser Lys Pro Tyr Tyr Gln Val Ile Val Gln Glu  
     450            455            460  
 Asn Asn Thr Pro Gly Ala Tyr Leu Leu Ser Val Ser Ala Arg Asp Pro  
     465            470            475            480  
 Asp Leu Gly Leu Asn Gly Ser Val Ser Tyr Gln Ile Val Pro Ser Gln  
     485            490            495

Val Arg Asp Met Pro Val Phe Thr Tyr Val Ser Ile Asn Pro Asn Ser  
       500                  505                  510  
 Gly Asp Ile Tyr Ala Leu Arg Ser Phe Asn His Glu Gln Thr Lys Ala  
       515                  520                  525  
 Phe Glu Phe Lys Val Leu Ala Lys Asp Gly Gly Leu Pro Ser Leu Gln  
       530                  535                  540  
 Ser Asn Ala Thr Val Arg Val Ile Ile Leu Asp Val Asn Asp Asn Thr  
       545                  550                  555                  560  
 Pro Val Ile Thr Ala Pro Pro Leu Ile Asn Gly Thr Ala Glu Val Tyr  
       565                  570                  575  
 Ile Pro Arg Asn Ser Gly Ile Gly Tyr Leu Val Thr Val Val Lys Ala  
       580                  585                  590  
 Glu Asp Tyr Asp Glu Gly Glu Asn Gly Arg Val Thr Tyr Asp Met Thr  
       595                  600                  605  
 Glu Gly Asp Arg Gly Phe Phe Glu Ile Asp Gln Val Asn Gly Glu Val  
       610                  615                  620  
 Arg Thr Thr Arg Thr Phe Gly Glu Ser Ser Lys Ser Ser Tyr Glu Leu  
       625                  630                  635                  640  
 Ile Val Val Ala His Asp His Gly Lys Thr Ser Leu Ser Ala Ser Ala  
       645                  650                  655  
 Leu Val Leu Ile Tyr Leu Ser Pro Ala Leu Asp Ala Gln Glu Ser Met  
       660                  665                  670  
 Gly Ser Val Asn Leu Ser Leu Ile Phe Ile Ile Ala Leu Gly Ser Ile  
       675                  680                  685  
 Ala Gly Ile Leu Phe Val Thr Met Ile Phe Val Ala Ile Lys Cys Lys  
       690                  695                  700  
 Arg Asp Asn Lys Glu Ile Arg Thr Tyr Asn Cys Ser Asn Cys Leu Thr  
       705                  710                  715                  720  
 Ile Thr Cys Leu Leu Gly Cys Phe Ile Lys Gly Gln Asn Ser Lys Cys  
       725                  730                  735  
 Leu His Cys Ile Ser Val Ser Pro Ile Ser Glu Glu Gln Asp Lys Lys  
       740                  745                  750  
 Thr Glu Glu Lys Val Ser Leu Arg Gly Lys Arg Ile Ala Glu Tyr Ser  
       755                  760                  765  
 Tyr Gly His Gln Lys Lys Ser Ser Lys Lys Lys Ile Ser Lys Asn  
       770                  775                  780  
 Asp Ile Arg Leu Val Pro Arg Asp Val Glu Glu Thr Asp Lys Met Asn  
       785                  790                  795                  800  
 Val Val Ser Cys Ser Ser Leu Thr Ser Ser Leu Asn Tyr Phe Asp Tyr  
       805                  810                  815  
 His Gln Gln Thr Leu Pro Leu Gly Cys Arg Arg Ser Glu Ser Thr Phe  
       820                  825                  830  
 Leu Asn Val Glu Asn Gln Asn Thr Arg Asn Thr Ser Ala Asn His Ile  
       835                  840                  845  
 Tyr His His Ser Phe Asn Ser Gln Gly Pro Gln Gln Pro Asp Leu Ile  
       850                  855                  860  
 Ile Asn Gly Val Pro Leu Pro Glu Val Ser Ala Ala Lys Trp Leu Cys  
       865                  870                  875                  880  
 Glu Val Leu Pro Gly Leu Leu Leu  
       885

<210> 34  
 <211> 855  
 <212> PRT  
 <213> Homo sapiens

<400> 34

Met Glu Ser Leu Leu Leu Pro Val Leu Leu Leu Ala Ile Leu Trp  
1 5 10 15  
Thr Gln Ala Ala Ala Leu Ile Asn Leu Lys Tyr Ser Val Glu Glu Glu  
20 25 30  
Gln Arg Ala Gly Thr Val Ile Ala Asn Val Ala Lys Asp Ala Arg Glu  
35 40 45  
Ala Gly Phe Ala Leu Asp Pro Arg Gln Ala Ser Ala Phe Arg Val Val  
50 55 60  
Ser Asn Ser Ala Pro His Leu Val Asp Ile Asn Pro Ser Ser Gly Leu  
65 70 75 80  
Leu Val Thr Lys Gln Lys Ile Asp Arg Asp Leu Leu Cys Arg Gln Ser  
85 90 95  
Pro Lys Cys Ile Ile Ser Leu Glu Val Met Ser Ser Ser Met Glu Ile  
100 105 110  
Cys Val Ile Lys Val Glu Ile Lys Asp Leu Asn Asp Asn Ala Pro Ser  
115 120 125  
Phe Pro Ala Ala Gln Ile Glu Leu Glu Ile Ser Glu Ala Ala Ser Pro  
130 135 140  
Gly Thr Arg Ile Pro Leu Asp Ser Ala Tyr Asp Pro Asp Ser Gly Ser  
145 150 155 160  
Phe Gly Val Gln Thr Tyr Glu Leu Thr Pro Asn Glu Leu Phe Gly Leu  
165 170 175  
Glu Ile Lys Thr Arg Gly Asp Gly Ser Arg Phe Ala Glu Leu Val Val  
180 185 190  
Glu Lys Ser Leu Asp Arg Glu Thr Gln Ser His Tyr Ser Phe Arg Ile  
195 200 205  
Thr Ala Leu Asp Gly Gly Asp Pro Pro Arg Leu Gly Thr Val Gly Leu  
210 215 220  
Ser Ile Lys Val Thr Asp Ser Asn Asp Asn Asn Pro Val Phe Ser Glu  
225 230 235 240  
Ser Thr Tyr Ala Val Ser Val Pro Glu Asn Ser Pro Pro Asn Thr Pro  
245 250 255  
Val Ile Arg Leu Asn Ala Ser Asp Pro Asp Glu Gly Thr Asn Gly Gln  
260 265 270  
Val Val Tyr Ser Phe Tyr Gly Tyr Val Asn Asp Arg Thr Arg Glu Leu  
275 280 285  
Phe Gln Ile Asp Pro His Ser Gly Leu Val Thr Val Thr Gly Ala Leu  
290 295 300  
Asp Tyr Glu Glu Gly His Val Tyr Glu Leu Asp Val Gln Ala Lys Asp  
305 310 315 320  
Leu Gly Pro Asn Ser Ile Pro Ala His Cys Lys Val Thr Val Ser Val  
325 330 335  
Leu Asp Thr Asn Asp Asn Pro Pro Val Ile Asn Leu Leu Ser Val Asn  
340 345 350  
Ser Glu Leu Val Glu Val Ser Glu Ser Ala Pro Pro Gly Tyr Val Ile  
355 360 365  
Ala Leu Val Arg Val Ser Asp Arg Asp Ser Gly Leu Asn Gly Arg Val  
370 375 380  
Gln Cys Arg Leu Leu Gly Asn Val Pro Phe Arg Leu Gln Glu Tyr Glu  
385 390 395 400  
Ser Phe Ser Thr Ile Leu Val Asp Gly Arg Leu Asp Arg Glu Gln His  
405 410 415  
Asp Gln Tyr Asn Leu Thr Ile Gln Ala Arg Asp Gly Gly Val Pro Met  
420 425 430  
Leu Gln Ser Ala Lys Ser Phe Thr Val Leu Ile Thr Asp Glu Asn Asp  
435 440 445

Asn His Pro His Phe Ser Lys Pro Tyr Tyr Gln Val Ile Val Gln Glu  
     450                  455                  460  
 Asn Asn Thr Pro Gly Ala Tyr Leu Leu Ser Val Ser Ala Arg Asp Pro  
     465                  470                  475                  480  
 Asp Leu Gly Leu Asn Gly Ser Val Ser Tyr Gln Ile Val Pro Ser Gln  
     485                  490                  495  
 Val Arg Asp Met Pro Val Phe Thr Tyr Val Ser Ile Asn Pro Asn Ser  
     500                  505                  510  
 Gly Asp Ile Tyr Ala Leu Arg Ser Phe Asn His Glu Gln Thr Lys Ala  
     515                  520                  525  
 Phe Glu Phe Lys Val Leu Ala Lys Asp Gly Gly Leu Pro Ser Leu Gln  
     530                  535                  540  
 Ser Asn Ala Thr Val Arg Val Ile Ile Leu Asp Val Asn Asp Asn Thr  
     545                  550                  555                  560  
 Pro Val Ile Thr Ala Pro Pro Leu Ile Asn Gly Thr Ala Glu Val Tyr  
     565                  570                  575  
 Ile Pro Arg Asn Ser Gly Ile Gly Tyr Leu Val Thr Val Val Lys Ala  
     580                  585                  590  
 Glu Asp Tyr Asp Glu Gly Glu Asn Gly Arg Val Thr Tyr Asp Met Thr  
     595                  600                  605  
 Glu Gly Asp Arg Gly Phe Phe Glu Ile Asp Gln Val Asn Gly Glu Val  
     610                  615                  620  
 Arg Thr Thr Arg Thr Phe Gly Glu Ser Ser Lys Ser Ser Tyr Glu Leu  
     625                  630                  635                  640  
 Ile Val Val Ala His Asp His Gly Lys Thr Ser Leu Ser Ala Ser Ala  
     645                  650                  655  
 Leu Val Leu Ile Tyr Leu Ser Pro Ala Leu Asp Ala Gln Glu Ser Met  
     660                  665                  670  
 Gly Ser Val Asn Leu Ser Leu Ile Phe Ile Ile Ala Leu Gly Ser Ile  
     675                  680                  685  
 Ala Gly Ile Leu Phe Val Thr Met Ile Phe Val Ala Ile Lys Cys Lys  
     690                  695                  700  
 Arg Asp Asn Lys Glu Ile Arg Thr Tyr Asn Cys Arg Ile Ala Glu Tyr  
     705                  710                  715                  720  
 Ser Tyr Gly His Gln Lys Lys Ser Ser Lys Lys Lys Ile Ser Lys  
     725                  730                  735  
 Asn Asp Ile Arg Leu Val Pro Arg Asp Val Glu Glu Thr Asp Lys Met  
     740                  745                  750  
 Asn Val Val Ser Cys Ser Ser Leu Thr Ser Ser Leu Asn Tyr Phe Asp  
     755                  760                  765  
 Tyr His Gln Gln Thr Leu Pro Leu Gly Cys Arg Arg Ser Glu Ser Thr  
     770                  775                  780  
 Phe Leu Asn Val Glu Asn Gln Asn Thr Arg Asn Thr Ser Ala Asn His  
     785                  790                  795                  800  
 Ile Tyr His His Ser Phe Asn Ser Gln Gly Pro Gln Gln Pro Asp Leu  
     805                  810                  815  
 Ile Ile Asn Gly Val Pro Leu Pro Glu Thr Glu Asn Tyr Ser Phe Asp  
     820                  825                  830  
 Ser Asn Tyr Val Asn Ser Arg Ala His Leu Ile Lys Arg Tyr Val Gly  
     835                  840                  845  
 Leu Leu Ala Tyr Cys Cys Asn  
     850                  855

<210> 35  
 <211> 329  
 <212> PRT

<213> Homo sapiens

<400> 35

Met Val Thr Lys Ala Phe Val Leu Leu Ala Ile Phe Ala Glu Ala Ser  
1 5 10 15  
Ala Lys Ser Cys Ala Pro Asn Lys Ala Asp Val Ile Leu Val Phe Cys  
20 25 30  
Tyr Pro Lys Thr Ile Ile Thr Lys Ile Pro Glu Cys Pro Tyr Gly Trp  
35 40 45  
Glu Val His Gln Leu Ala Leu Gly Gly Leu Cys Tyr Asn Gly Val His  
50 55 60  
Glu Gly Gly Tyr Tyr Gln Phe Val Ile Pro Asp Leu Ser Pro Lys Asn  
65 70 75 80  
Lys Ser Tyr Cys Gly Thr Gln Ser Glu Tyr Lys Pro Pro Ile Tyr His  
85 90 95  
Phe Tyr Ser His Ile Val Ser Asn Asp Thr Thr Val Ile Val Lys Asn  
100 105 110  
Gln Pro Val Asn Tyr Ser Phe Ser Cys Thr Tyr His Ser Thr Tyr Leu  
115 120 125  
Val Asn Gln Ala Ala Phe Asp Gln Arg Val Ala Thr Val His Val Lys  
130 135 140  
Asn Gly Ser Met Gly Thr Phe Glu Ser Gln Leu Ser Leu Asn Phe Tyr  
145 150 155 160  
Thr Asn Ala Lys Phe Ser Ile Lys Lys Glu Ala Pro Phe Val Leu Glu  
165 170 175  
Ala Ser Glu Ile Gly Ser Asp Leu Phe Ala Gly Val Glu Ala Lys Gly  
180 185 190  
Leu Ser Ile Arg Phe Lys Val Val Leu Asn Ser Cys Trp Ala Thr Pro  
195 200 205  
Ser Ala Asp Phe Met Tyr Pro Leu Gln Trp Gln Leu Ile Asn Lys Gly  
210 215 220  
Cys Pro Thr Asp Glu Thr Val Leu Val His Glu Asn Gly Arg Asp His  
225 230 235 240  
Arg Ala Thr Phe Gln Phe Asn Ala Phe Arg Phe Gln Asn Ile Pro Lys  
245 250 255  
Leu Ser Lys Val Trp Leu His Cys Glu Thr Phe Ile Cys Asp Ser Glu  
260 265 270  
Lys Leu Ser Cys Pro Val Thr Cys Asp Lys Arg Lys Arg Leu Leu Arg  
275 280 285  
Asp Gln Thr Gly Gly Val Leu Val Val Glu Leu Ser Leu Arg Ser Arg  
290 295 300  
Gly Phe Ser Ser Leu Tyr Ser Phe Ser Asp Val Leu His His Leu Ile  
305 310 315 320  
Met Met Leu Gly Ile Cys Ala Val Leu  
325

<210> 36

<211> 232

<212> PRT

<213> Homo sapiens

<400> 36

Met Leu Tyr Thr Arg Lys Asn Leu Thr Cys Ala Gln Thr Ile Asn Ser  
1 5 10 15  
Ser Ala Phe Gly Asn Leu Asn Val Thr Lys Lys Thr Thr Phe Ile Val  
20 25 30

His	Gly	Phe	Arg	Pro	Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu
35							40					45			
Val	Lys	Gly	Leu	Leu	Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Val	Asp
50							55					60			
Trp	Asn	Arg	Gly	Ala	Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys
65							70			75					80
Thr	Arg	Lys	Val	Ala	Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu
							85			90				95	
Ala	Glu	Gly	Ala	Ser	Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu
							100			105				110	
Gly	Ala	His	Ile	Ser	Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu
							115			120				125	
Gly	Arg	Ile	Thr	Gly	Leu	Asp	Pro	Ala	Gly	Pro	Leu	Phe	Asn	Gly	Lys
							130			135				140	
Pro	His	Gln	Asp	Arg	Leu	Asp	Pro	Ser	Asp	Ala	Gln	Phe	Val	Asp	Val
145							150					155			160
Ile	His	Ser	Asp	Thr	Asp	Gly	Asn	Ala	Pro	Phe	Leu	Val	Ala	Leu	Gly
							165					170			175
Tyr	Lys	Glu	Pro	Leu	Gly	Asn	Ile	Asp	Phe	Tyr	Pro	Asn	Gly	Gly	Leu
							180			185				190	
Asp	Gln	Pro	Gly	Cys	Pro	Lys	Thr	Ile	Leu	Gly	Gly	Asn	Val	Lys	Glu
							195			200				205	
Met	Ile	Gln	Ala	Ser	Tyr	Ile	Phe	Phe	Leu	Lys	Asn	Asp	Ser	Met	Asp
							210			215				220	
Leu	Ser	Ser	Pro	Lys	Glu	Val	Glu								
							225								
							230								

<210> 37  
<211> 452  
<212> PRT  
<213> Homo sapiens

<400> 37															
Met	Leu	Arg	Phe	Tyr	Leu	Phe	Ile	Ser	Leu	Leu	Cys	Leu	Ser	Arg	Ser
1							5			10				15	
Asp	Ala	Glu	Glu	Thr	Cys	Pro	Ser	Phe	Thr	Arg	Leu	Ser	Phe	His	Ser
							20			25				30	
Ala	Val	Val	Gly	Thr	Gly	Leu	Asn	Val	Arg	Leu	Met	Leu	Tyr	Thr	Arg
							35			40				45	
Lys	Asn	Leu	Thr	Cys	Ala	Gln	Thr	Ile	Asn	Ser	Ser	Ala	Phe	Gly	Asn
							50			55				60	
Leu	Asn	Val	Thr	Lys	Lys	Thr	Thr	Phe	Ile	Val	His	Gly	Phe	Arg	Pro
							65			70				80	
Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu	Val	Lys	Gly	Leu	Leu
							85			90				95	
Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Asp	Trp	Asn	Arg	Gly	Ala	
							100			105				110	
Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys	Thr	Arg	Lys	Val	Ala
							115			120				125	
Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu	Ala	Glu	Gly	Ala	Ser
							130			135				140	
Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu	Gly	Ala	His	Ile	Ser
							145			150				155	
Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu	Gly	Arg	Ile	Thr	Gly
							165			170				175	

Leu Asp Pro Ala Gly Pro Leu Phe Asn Gly Lys Pro His Gln Asp Arg  
     180                     185                     190  
 Leu Asp Pro Ser Asp Ala Gln Phe Val Asp Val Ile His Ser Asp Thr  
     195                     200                     205  
 Asp Ala Leu Gly Tyr Lys Glu Pro Leu Gly Asn Ile Asp Phe Tyr Pro  
     210                     215                     220  
 Asn Gly Gly Leu Asp Gln Pro Gly Cys Pro Lys Thr Ile Leu Gly Gly  
     225                     230                     235                     240  
 Phe Gln Tyr Phe Lys Cys Asp His Gln Arg Ser Val Tyr Leu Tyr Leu  
     245                     250                     255  
 Ser Ser Leu Arg Glu Ser Cys Thr Ile Thr Ala Tyr Pro Cys Asp Ser  
     260                     265                     270  
 Tyr Gln Asp Tyr Arg Asn Gly Lys Cys Val Ser Cys Gly Thr Ser Gln  
     275                     280                     285  
 Lys Glu Ser Cys Pro Leu Leu Gly Tyr Tyr Ala Asp Asn Trp Lys Asp  
     290                     295                     300  
 His Leu Arg Gly Lys Asp Pro Pro Met Thr Lys Ala Phe Phe Asp Thr  
     305                     310                     315                     320  
 Ala Glu Glu Ser Pro Phe Cys Met Tyr His Tyr Phe Val Asp Ile Ile  
     325                     330                     335  
 Thr Trp Asp Lys Asn Val Arg Arg Gly Asp Ile Thr Ile Lys Leu Arg  
     340                     345                     350  
 Asp Lys Ala Gly Asn Thr His Arg Ser Lys Ile Ile Ser Asn Glu Pro  
     355                     360                     365  
 Thr Thr Phe Gln Lys Tyr His Gln Val Ser Leu Leu Ala Arg Phe Asn  
     370                     375                     380  
 Gln Asp Leu Asp Lys Val Ala Ala Ile Ser Leu Met Phe Ser Thr Gly  
     385                     390                     395                     400  
 Ser Leu Ile Gly Pro Arg Tyr Lys Leu Arg Ile Leu Arg Met Lys Leu  
     405                     410                     415  
 Arg Ser Leu Ala His Pro Glu Arg Pro Gln Leu Cys Arg Tyr Asp Leu  
     420                     425                     430  
 Val Leu Met Glu Asn Val Glu Thr Val Phe Gln Pro Ile Leu Cys Pro  
     435                     440                     445  
 Glu Leu Gln Leu  
     450

<210> 38  
 <211> 450  
 <212> PRT  
 <213> Homo sapiens

<400> 38  
 Met Gly Leu Arg Ser His His Leu Ser Leu Gly Leu Leu Leu Phe  
     1                     5                     10                     15  
 Leu Leu Pro Ala Glu Cys Leu Gly Ala Glu Gly Arg Leu Ala Leu Lys  
     20                     25                     30  
 Leu Phe Arg Asp Leu Phe Ala Asn Tyr Thr Ser Ala Leu Arg Pro Val  
     35                     40                     45  
 Ala Asp Thr Asp Gln Thr Leu Asn Val Thr Leu Glu Val Thr Leu Ser  
     50                     55                     60  
 Gln Ile Ile Asp Met Asp Glu Arg Asn Gln Val Leu Thr Leu Tyr Leu  
     65                     70                     75                     80  
 Trp Ile Arg Gln Glu Trp Thr Asp Ala Tyr Leu Arg Trp Asp Pro Asn  
     85                     90                     95

Ala Tyr Gly Gly Leu Asp Ala Ile Arg Ile Pro Ser Ser Leu Val Trp  
     100                 105                 110  
 Arg Pro Asp Ile Val Leu Tyr Asn Lys Ala Asp Ala Gln Pro Pro Gly  
     115                 120                 125  
 Ser Ala Ser Thr Asn Val Val Leu Arg His Asp Gly Ala Val Arg Trp  
     130                 135                 140  
 Asp Ala Pro Ala Ile Thr Arg Ser Ser Cys Arg Val Asp Val Ala Ala  
     145                 150                 155                 160  
 Phe Pro Phe Asp Ala Gln His Cys Gly Leu Thr Phe Gly Ser Trp Thr  
     165                 170                 175  
 His Gly Gly His Gln Leu Asp Val Arg Pro Arg Gly Ala Ala Ala Ser  
     180                 185                 190  
 Leu Ala Asp Phe Val Glu Asn Val Glu Trp Arg Val Leu Gly Met Pro  
     195                 200                 205  
 Ala Arg Arg Arg Val Leu Thr Tyr Gly Cys Cys Ser Glu Pro Tyr Pro  
     210                 215                 220  
 Asp Val Thr Phe Thr Leu Leu Arg Arg Arg Ala Ala Ala Tyr Val  
     225                 230                 235                 240  
 Cys Asn Leu Leu Leu Pro Cys Val Leu Ile Ser Leu Leu Ala Pro Leu  
     245                 250                 255  
 Ala Phe His Leu Pro Ala Asp Ser Gly Glu Lys Val Ser Leu Gly Val  
     260                 265                 270  
 Thr Val Leu Leu Ala Leu Thr Val Phe Gln Leu Leu Leu Ala Glu Ser  
     275                 280                 285  
 Met Pro Pro Ala Glu Ser Val Pro Leu Ile Gly Lys Tyr Tyr Met Ala  
     290                 295                 300  
 Thr Met Thr Met Val Thr Phe Ser Thr Ala Leu Thr Ile Leu Ile Met  
     305                 310                 315                 320  
 Asn Leu His Tyr Cys Gly Pro Ser Val Arg Pro Val Pro Ala Trp Ala  
     325                 330                 335  
 Arg Ala Leu Leu Leu Gly His Leu Ala Arg Gly Leu Cys Val Arg Glu  
     340                 345                 350  
 Arg Gly Glu Pro Cys Gly Gln Ser Arg Pro Pro Glu Leu Ser Pro Ser  
     355                 360                 365  
 Pro Gln Ser Pro Glu Gly Gly Ala Gly Pro Pro Ala Gly Pro Cys His  
     370                 375                 380  
 Glu Pro Arg Cys Leu Cys Arg Gln Glu Ala Leu Leu His His Val Ala  
     385                 390                 395                 400  
 Thr Ile Ala Asn Thr Phe Arg Ser His Arg Ala Ala Gln Arg Cys His  
     405                 410                 415  
 Glu Asp Trp Lys Arg Leu Ala Arg Val Met Asp Arg Phe Phe Leu Ala  
     420                 425                 430  
 Ile Phe Phe Ser Met Ala Leu Val Met Ser Leu Leu Val Leu Val Gln  
     435                 440                 445  
 Ala Leu  
     450

<210> 39  
 <211> 255  
 <212> PRT  
 <213> Homo sapiens

<400> 39  
 Met Val Lys Gly Glu Lys Gly Pro Lys Gly Lys Lys Ile Thr Leu Lys  
     1                 5                 10                 15

Val	Ala	Arg	Asn	Cys	Ile	Lys	Ile	Thr	Phe	Asp	Gly	Lys	Lys	Arg	Leu
					20			25					30		
Asp	Leu	Ser	Lys	Met	Gly	Ile	Thr	Thr	Phe	Pro	Lys	Cys	Ile	Leu	Arg
					35			40				45			
Leu	Ser	Asp	Met	Asp	Glu	Leu	Asp	Leu	Ser	Arg	Asn	Leu	Ile	Arg	Lys
					50			55				60			
Ile	Pro	Asp	Ser	Ile	Ser	Lys	Phe	Gln	Asn	Leu	Arg	Trp	Leu	Asp	Leu
					65			70			75		80		
His	Ser	Asn	Tyr	Ile	Asp	Lys	Leu	Pro	Glu	Ser	Ile	Gly	Gln	Met	Thr
					85			90				95			
Ser	Leu	Leu	Tyr	Leu	Asn	Val	Ser	Asn	Asn	Arg	Leu	Thr	Ser	Asn	Gly
					100			105				110			
Leu	Pro	Val	Glu	Leu	Lys	Gln	Leu	Lys	Asn	Ile	Arg	Ala	Val	Asn	Leu
					115			120				125			
Gly	Leu	Asn	His	Leu	Asp	Ser	Val	Pro	Thr	Thr	Leu	Gly	Ala	Leu	Lys
					130			135				140			
Glu	Leu	His	Glu	Val	Gly	Leu	His	Asp	Asn	Leu	Leu	Asn	Ile	Pro	
					145			150			155		160		
Val	Ser	Ile	Ser	Lys	Leu	Pro	Lys	Leu	Lys	Leu	Asn	Ile	Lys	Arg	
					165			170				175			
Asn	Pro	Phe	Pro	Lys	Pro	Gly	Glu	Ser	Glu	Ile	Phe	Ile	Asp	Ser	Ile
					180			185				190			
Arg	Arg	Leu	Glu	Asn	Leu	Tyr	Val	Val	Glu	Glu	Lys	Asp	Leu	Cys	Ala
					195			200				205			
Ala	Cys	Leu	Arg	Lys	Cys	Gln	Asn	Ala	Arg	Asp	Asn	Leu	Asn	Arg	Ile
					210			215				220			
Lys	Asn	Met	Ala	Thr	Thr	Thr	Pro	Arg	Lys	Thr	Ile	Phe	Pro	Asn	Leu
					225			230			235		240		
Ile	Ser	Pro	Asn	Ser	Met	Ala	Lys	Asp	Ser	Trp	Glu	Asp	Trp	Arg	
					245					250			255		

<210> 40

<211> 214

<212> PRT

<213> Homo sapiens

<400> 40

Met	Gln	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln	Arg
1					5			10				15			
Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln	Pro
					20			25				30			
Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Ser	Val	Tyr	Phe	Val	Gln	Tyr	Lys
					35			40				45			
Ile	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly	Thr
					50			55			60				
Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln	Glu
					65			70			75		80		
Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser	Glu
					85			90				95			
Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile	Asp
					100			105				110			
Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val	Ile
					115			120				125			
Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn	Val
					130			135				140			

Ser Ile Glu Asp Tyr Tyr Glu Leu Leu Tyr Arg Val Phe Ile Ile Asn  
145 150 155 160  
Asn Ser Leu Glu Lys Glu Gln Lys Val Tyr Glu Gly Ala His Arg Ala  
165 170 175  
Val Glu Ile Glu Ala Leu Thr Pro His Ser Ser Tyr Cys Val Val Ala  
180 185 190  
Glu Ile Tyr Gln Pro Met Leu Asp Arg Arg Ser Gln Arg Ser Glu Glu  
195 200 205  
Arg Cys Val Glu Ile Pro  
210

<210> 41  
<211> 231  
<212> PRT  
<213> Homo sapiens

<400> 41  
Met Met Pro Lys His Cys Phe Leu Gly Phe Leu Ile Ser Phe Phe Leu  
1 5 10 15  
Thr Gly Val Ala Gly Thr Gln Ser Thr His Glu Ser Leu Lys Pro Gln  
20 25 30  
Arg Val Gln Phe Gln Ser Arg Asn Phe His Asn Ile Leu Gln Trp Gln  
35 40 45  
Pro Gly Arg Ala Leu Thr Gly Asn Ser Ser Val Tyr Phe Val Gln Tyr  
50 55 60  
Lys Ile Tyr Gly Gln Arg Gln Trp Lys Asn Lys Glu Asp Cys Trp Gly  
65 70 75 80  
Thr Gln Glu Leu Ser Cys Asp Leu Thr Ser Glu Thr Ser Asp Ile Gln  
85 90 95  
Glu Pro Tyr Tyr Gly Arg Val Arg Ala Ala Ser Ala Gly Ser Tyr Ser  
100 105 110  
Glu Trp Ser Met Thr Pro Arg Phe Thr Pro Trp Trp Glu Thr Lys Ile  
115 120 125  
Asp Pro Pro Val Met Asn Ile Thr Gln Val Asn Gly Ser Leu Leu Val  
130 135 140  
Ile Leu His Ala Pro Asn Leu Pro Tyr Arg Tyr Gln Lys Glu Lys Asn  
145 150 155 160  
Val Ser Ile Glu Asp Tyr Tyr Glu Leu Leu Tyr Arg Val Phe Ile Ile  
165 170 175  
Asn Asn Ser Leu Glu Lys Glu Gln Lys Val Tyr Glu Gly Ala His Arg  
180 185 190  
Ala Val Glu Ile Glu Ala Leu Thr Pro His Ser Ser Tyr Cys Val Val  
195 200 205  
Ala Glu Ile Tyr Gln Pro Met Leu Asp Arg Arg Ser Gln Arg Ser Glu  
210 215 220  
Glu Arg Cys Val Glu Ile Pro  
225 230

<210> 42  
<211> 263  
<212> PRT  
<213> Homo sapiens

<400> 42

Met Met Pro Lys His Cys Phe Leu Gly Phe Leu Ile Ser Phe Phe Leu  
 1 5 10 15  
 Thr Gly Val Ala Gly Thr Gln Ser Thr His Glu Ser Leu Lys Pro Gln  
 20 25 30  
 Arg Val Gln Phe Gln Ser Arg Asn Phe His Asn Ile Leu Gln Trp Gln  
 35 40 45  
 Pro Gly Arg Ala Leu Thr Gly Asn Ser Ser Val Tyr Phe Val Gln Tyr  
 50 55 60  
 Lys Ile Met Phe Ser Cys Ser Met Lys Ser Ser His Gln Lys Pro Ser  
 65 70 75 80  
 Gly Cys Trp Gln His Ile Ser Cys Asn Phe Pro Gly Cys Arg Thr Leu  
 85 90 95  
 Ala Lys Tyr Gly Gln Arg Gln Trp Lys Asn Lys Glu Asp Cys Trp Gly  
 100 105 110  
 Thr Gln Glu Leu Ser Cys Asp Leu Thr Ser Glu Thr Ser Asp Ile Gln  
 115 120 125  
 Glu Pro Tyr Tyr Gly Arg Val Arg Ala Ala Ser Ala Gly Ser Tyr Ser  
 130 135 140  
 Glu Trp Ser Met Thr Pro Arg Phe Thr Pro Trp Trp Glu Thr Lys Ile  
 145 150 155 160  
 Asp Pro Pro Val Met Asn Ile Thr Gln Val Asn Gly Ser Leu Leu Val  
 165 170 175  
 Ile Leu His Ala Pro Asn Leu Pro Tyr Arg Tyr Gln Lys Glu Lys Asn  
 180 185 190  
 Val Ser Ile Glu Asp Tyr Tyr Glu Leu Leu Tyr Arg Val Phe Ile Ile  
 195 200 205  
 Asn Asn Ser Leu Glu Lys Glu Gln Lys Val Tyr Glu Gly Ala His Arg  
 210 215 220  
 Ala Val Glu Ile Glu Ala Leu Thr Pro His Ser Ser Tyr Cys Val Val  
 225 230 235 240  
 Ala Glu Ile Tyr Gln Pro Met Leu Asp Arg Arg Ser Gln Arg Ser Glu  
 245 250 255  
 Glu Arg Cys Val Glu Ile Pro  
 260

<210> 43  
 <211> 259  
 <212> PRT  
 <213> Homo sapiens

<400> 43

Met Tyr Val Leu Ser Pro Val Glu Phe Ile Ile Leu Gln Leu Leu Phe  
 1 5 10 15  
 Ile Gln Ala Ile Ser Ser Ser Leu Lys Gly Phe Leu Ser Ala Met Arg  
 20 25 30  
 Leu Ala His Arg Gly Cys Asn Val Asp Thr Pro Val Ser Thr Leu Thr  
 35 40 45  
 Pro Val Lys Thr Ser Glu Phe Glu Asn Phe Lys Thr Lys Met Val Ile  
 50 55 60  
 Thr Ser Lys Lys Asp Tyr Pro Leu Ser Lys Asn Phe Pro Tyr Ser Leu  
 65 70 75 80  
 Glu His Leu Gln Thr Ser Tyr Cys Gly Leu Val Arg Val Asp Met Arg  
 85 90 95  
 Met Leu Cys Leu Lys Ser Leu Arg Lys Leu Asp Leu Ser His Asn His  
 100 105 110

Ile Lys Lys Leu Pro Ala Thr Ile Gly Asp Leu Ile His Leu Gln Glu  
     115                120                125  
 Leu Asn Leu Asn Asp Asn His Leu Glu Ser Phe Ser Val Ala Leu Cys  
     130                135                140  
 His Ser Thr Leu Gln Lys Ser Leu Arg Ser Leu Asp Leu Ser Lys Asn  
     145                150                155                160  
 Lys Ile Lys Ala Leu Pro Val Gln Phe Cys Gln Leu Gln Glu Leu Lys  
     165                170                175  
 Asn Leu Lys Leu Asp Asp Asn Glu Leu Ile Gln Phe Pro Cys Lys Ile  
     180                185                190  
 Gly Gln Leu Ile Asn Leu Arg Phe Leu Ser Ala Ala Arg Asn Lys Leu  
     195                200                205  
 Pro Phe Leu Pro Ser Glu Phe Arg Asn Leu Ser Leu Glu Tyr Leu Asp  
     210                215                220  
 Leu Phe Gly Asn Thr Phe Glu Gln Pro Lys Val Leu Pro Val Ile Lys  
     225                230                235                240  
 Leu Gln Ala Pro Leu Thr Leu Leu Glu Ser Ser Ala Arg Thr Ile Leu  
     245                250                255  
 His Asn Arg

<210> 44  
 <211> 416  
 <212> PRT  
 <213> Homo sapiens

<400> 44  
 Met Lys Leu His Cys Glu Val Glu Val Ile Ser Arg His Leu Pro Ala  
     1                5                10                15  
 Leu Gly Leu Arg Asn Arg Gly Lys Gly Val Arg Ala Val Leu Ser Leu  
     20                25                30  
 Cys Gln Gln Thr Ser Arg Ser Gln Pro Pro Val Arg Ala Phe Leu Leu  
     35                40                45  
 Ile Ser Thr Leu Lys Asp Lys Arg Gly Thr Arg Tyr Glu Leu Arg Glu  
     50                55                60  
 Asn Ile Glu Gln Phe Phe Thr Lys Phe Val Asp Glu Gly Lys Ala Thr  
     65                70                75                80  
 Val Arg Leu Lys Glu Pro Pro Val Asp Ile Cys Leu Ser Lys Ala Ile  
     85                90                95  
 Ser Ser Ser Leu Lys Gly Phe Leu Ser Ala Met Arg Leu Ala His Arg  
     100               105               110  
 Gly Cys Asn Val Asp Thr Pro Val Ser Thr Leu Thr Pro Val Lys Thr  
     115               120               125  
 Ser Glu Phe Glu Asn Phe Lys Thr Lys Met Val Ile Thr Ser Lys Lys  
     130               135               140  
 Asp Tyr Pro Leu Ser Lys Asn Phe Pro Tyr Ser Leu Glu His Leu Gln  
     145               150               155                160  
 Thr Ser Tyr Cys Gly Leu Val Arg Val Asp Met Arg Met Leu Cys Leu  
     165               170               175  
 Lys Ser Leu Arg Lys Leu Asp Leu Ser His Asn His Ile Lys Lys Leu  
     180               185               190  
 Pro Ala Thr Ile Gly Asp Leu Ile His Leu Gln Glu Leu Asn Leu Asn  
     195               200               205  
 Asp Asn His Leu Glu Ser Phe Ser Val Ala Leu Cys His Ser Thr Leu  
     210               215               220

Gln Lys Ser Leu Arg Ser Leu Asp Leu Ser Lys Asn Lys Ile Lys Ala  
 225 230 235 240  
 Leu Pro Val Gln Phe Cys Gln Leu Gln Glu Leu Lys Asn Leu Lys Leu  
 245 250 255  
 Asp Asp Asn Glu Leu Ile Gln Phe Pro Cys Lys Ile Gly Gln Leu Ile  
 260 265 270  
 Asn Leu Arg Phe Leu Ser Ala Ala Arg Asn Lys Leu Pro Phe Leu Pro  
 275 280 285  
 Ser Glu Phe Arg Asn Leu Ser Leu Glu Tyr Leu Asp Leu Phe Gly Asn  
 290 295 300  
 Thr Phe Glu Gln Pro Lys Val Leu Pro Val Ile Lys Leu Gln Ala Pro  
 305 310 315 320  
 Leu Thr Leu Leu Glu Ser Ser Ala Arg Thr Ile Leu His Asn Arg Asn  
 325 330 335  
 Arg Ile Pro Tyr Gly Ser His Ile Ile Pro Phe His Leu Cys Gln Asp  
 340 345 350  
 Leu Asp Thr Ala Lys Ile Cys Val Cys Gly Arg Phe Cys Leu Asn Ser  
 355 360 365  
 Phe Ile Gln Gly Thr Thr Met Asn Leu His Ser Val Ala His Thr  
 370 375 380  
 Val Val Leu Val Asp Asn Leu Gly Gly Thr Glu Ala Pro Ile Ile Ser  
 385 390 395 400  
 Tyr Phe Cys Ser Leu Gly Cys Tyr Val Asn Ser Ser Asp Met Leu Lys  
 405 410 415

<210> 45  
 <211> 990  
 <212> DNA  
 <213> Mus musculus

<400> 45  
 atgggtggta gggccttcgt tttgctggcc ctctttgcag aaggcctcagc gaaatcatgc 60  
 actccgaata aagcagatgt catccttgc ttttgttata ccaagaccat catcaactaa 120  
 atccccgagt gtccctatgg atgggaagta caccagctgg cactcggggg gctgtgttac 180  
 aacgggggtcc atgaagggtgg ctattaccag tttgtcatcc ctgtatctgtc acctaagaac 240  
 aagtccctact gcggaaaccca gtcagagtac aagccccccca tctaccactt ctacagccac 300  
 atcgtgtcca acgacacgac agtgatcgtg aagaaccagg ccgtcaacta ctcctctcc 360  
 tgcacctacc actcccaccta cttggtaac caggctgtt ttgaccagag agtggccact 420  
 gttcacgtca agaacgggag catggcaca tttgaaagcc agttgtccc caacttctac 480  
 actaatgcca agttttccac caaaaaagaa gctcccttcg ttctggaaac gtccgaaatc 540  
 ggctcagatc tgtttgcggg agtagaaagcc aaaggcctaa gcgttcgggtt caaagtggtc 600  
 ttgaatagct gctggccac cccctcggtc gacttcatgt accccttaca gtggcagctc 660  
 atcaataagg gctgccccac cgatgagaca gtcctctgtc atgagaacgg caaagaccac 720  
 agggccactt tccaaattcaa tgccttccgg ttccagaaca tccccaaact ttccaaagggtt 780  
 tggttacact gtgagacgtt catctgcgac agtgagaagc ttcctgtccc cgtgaactgt 840  
 gacaaaacgga agcgcacgtc acgtgaccag acaggaggtg tcctgggtt ggagttgtcc 900  
 ctgaggagca gggcattttc cggcctctgt gacttctcag atgttcttct tcacccatc 960  
 ctgatgctgg ggacctggc tgtgtttag 990

<210> 46  
 <211> 329  
 <212> PRT  
 <213> Mus musculus

<400> 46

Met Val Val Arg Ala Phe Val Leu Leu Ala Leu Phe Ala Glu Ala Ser  
1 5 10 15  
Ala Lys Ser Cys Thr Pro Asn Lys Ala Asp Val Ile Leu Val Phe Cys  
20 25 30  
Tyr Pro Lys Thr Ile Ile Thr Lys Ile Pro Glu Cys Pro Tyr Gly Trp  
35 40 45  
Glu Val His Gln Leu Ala Leu Gly Gly Leu Cys Tyr Asn Gly Val His  
50 55 60  
Glu Gly Gly Tyr Tyr Gln Phe Val Ile Pro Asp Leu Ser Pro Lys Asn  
65 70 75 80  
Lys Ser Tyr Cys Gly Thr Gln Ser Glu Tyr Lys Pro Pro Ile Tyr His  
85 90 95  
Phe Tyr Ser His Ile Val Ser Asn Asp Ser Thr Val Ile Val Lys Asn  
100 105 110  
Gln Pro Val Asn Tyr Ser Phe Ser Cys Thr Tyr His Ser Thr Tyr Leu  
115 120 125  
Val Asn Gln Ala Ala Phe Asp Gln Arg Val Ala Thr Val His Val Lys  
130 135 140  
Asn Gly Ser Met Gly Thr Phe Glu Ser Gln Leu Ser Leu Asn Phe Tyr  
145 150 155 160  
Thr Asn Ala Lys Phe Ser Thr Lys Lys Glu Ala Pro Phe Val Leu Glu  
165 170 175  
Thr Ser Glu Ile Gly Ser Asp Leu Phe Ala Gly Val Glu Ala Lys Gly  
180 185 190  
Leu Ser Val Arg Phe Lys Val Val Leu Asn Ser Cys Trp Ala Thr Pro  
195 200 205  
Ser Ala Asp Phe Met Tyr Pro Leu Gln Trp Gln Leu Ile Asn Lys Gly  
210 215 220  
Cys Pro Thr Asp Glu Thr Val Leu Val His Glu Asn Gly Lys Asp His  
225 230 235 240  
Arg Ala Thr Phe Gln Phe Asn Ala Phe Arg Phe Gln Asn Ile Pro Lys  
245 250 255  
Leu Ser Lys Val Trp Leu His Cys Glu Thr Phe Ile Cys Asp Ser Glu  
260 265 270  
Lys Leu Ser Cys Pro Val Asn Cys Asp Lys Arg Lys Arg Met Leu Arg  
275 280 285  
Asp Gln Thr Gly Gly Val Leu Val Val Glu Leu Ser Leu Arg Ser Arg  
290 295 300  
Ala Phe Ser Gly Leu Cys Asp Phe Ser Asp Val Leu Leu His Leu Ile  
305 310 315 320  
Leu Met Leu Gly Thr Trp Ala Val Leu  
325